DOCUMENT RESUME

ED 227 006 SO 014 345

TITLE	A Day of Dialogue. Planning & Curriculum Resource Guide. Dealing with Issues of Nuclear War in the Classroom.
INSTITUTION	Educators for Social Responsibility, Cambridge, MA.
PUB DATE	Sep 82
NOTE	236p.; Some small print type may not reproduce clearly in microfiche.
AVAILABLE FROM	Educators for Social Responsibility, 639 Massachusetts Avenue, Cambridge, MA 02139 ($12.00).
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Controversial Issues (Course Content); Disarmament; Elementary Secondary Education; Learning Activities; *Nuclear Warfare; Peace; Program Development; Program Implementation; Resource Materials; War; *World Problems

ABSTRACT

Elementary and secondary teachers and parents can use these resource materials to educate students about the issues related to war and peace. There are three major parts. The first part discusses how to implement a "day of dialogue," during which the dangers of nuclear war are examined. Included are tips on how to organize, meet resistance, and mobilize support; sample letters to parents and faculty members; publicity flyers; brief reading selections which provide background information on nuclear weapons and warfare; and study questions and reading lists. Part two suggests many varied learning activities which are organized by grade level (K-3, 4-6, 7-12). For example, students read and discuss books, role play, tell stories, participate in debates, write poetry, and listen to outside speakers. Part three is an annotated bibliography for students and teachers. (RM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED227006

creating our future · creating our future · creating our future · creating our future
creating our future · creating our future · creating our future · creating our future
creating our future · creating our future · creating our future · creating our future

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Carolyn Ramsdell

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

A DAY OF DIALOGUE

Planning & Curriculum Resource Guide

Dealing With Issues of Nuclear War in the Classroom

EDUCATORS FOR SOCIAL RESPONSIBILITY

Educators for Social Responsibility would like to extend thanks to the following individuals who graciously volunteered their time in preparing, writing, and editing this guide and to the many others who provided advice and support.

Elizabeth Akiba, Foundation for International Understanding
Tadatoshi Akiba, Tufts University
Gayle Alexander, Artist
Susan Alexander, Wellesley High School
Brian Anastasi, Typist
Judy Aranow, Little People's Learning Prep, W. Newton
Bruce Astrein, Educational Consultant, Boston
Judy Battat, New Alternative School, Cambridge
Barbara Beckwith, Watertown High School
Shelly Berman, Day of Dialogue National Coordinator, ESR
Mary Alice Brennan, Buckingham Brown & Nichols School, Cambridge
Jane Brown, Revere Public Schools
Lucile Burt, Arlington High School
Carole Chaet, Cambridge Public Schools
Virginia Chalmers, Cambridge Public Schools
Louise Collier, Parent, Hingham
Louise Conroy, Parent, Hingham
Rebecca B. Corwin, Lesley College, Cambridge
Diane D'Alessio, Timberlane, N.H. School District
Betsy Dudley, Cambridge Friends School
Eleanor Duckworth, Harvard University, Cambridge
Nanette Eckert, Canton Public Schools
Brenda S. Engel, Lesley College, Cambridge
Barbara E. Ernst, University of Lagos, Nigeria
Paula Evans, Newton Public Schools
David Fenichel, Music Technologist
Lisa Fenichel, Freelance Writer
Thea Fenichel, Little People's Learning Prep, W. Newton
Fern Fisher, Fayerweather Street School
Dan French, Charles River Academy, Cambridge and Jobs with Peace
Leonard Gibson, Lesley College, Cambridge
Natalie Goldring, Union of Concerned Scientists, Cambridge
Roz Grunman, Cambridge Public Schools
Tina Hammock, Cambridge Friends School
Dick Hanelin, Newton Public Schools
Fran Hiller, Cambridge Public Schools
Christopher Johnson, Freelance Writer
Lori M. Kahn, Teacher
Martha Keehn, World Education, Inc., New York
Vanessa Kirsch, Cambridge Rindge & Latin School
John Klavens, Student, Newton North High School
William Kreidler, Walpole Public Schools
Seth Kreisberg, Harvard Grad. School of Education, Cambridge
Frances Maher, Wheelock College, Norton
Richard Mayo-Smith, STOP Nuclear War, Boston
Joseph McDonald, Watertown Public Schools
Alan Medville, Brookline Public Schools
Mark Neidergang, Institute for Defense & Disarmament Studies, Brookline
Barbara Meyer, Brookline Public Schools
Susan Murphy, Avon Public Schools
Anne Nash, Lesley College, Cambridge
Janny Peet, Little People's Learning Prep, W. Newton
Sheena Phillips, Massachusetts Institute of Technology, Cambridge
Caroline Ramsdell, Teacher
Diane Rosenblum, Teacher
Ginger Ryan, Arlington Public Schools
Mark Skvirsky, Cambridge Public Schools
Roberta Snow, Facing History and Ourselves National Foundation, Brookline
John Stouffer, Hingham Public Schools
Lally Stowell, Watertown Public Schools
Richard Superti, Writer, Graphic Designer
David Svendsen, Education Cooperative, Needham
Deborah Tessman, 1982 Graduate, Newton North High School
Susan Thomas, Newton Arts in the Parks
Gene Thompson, Watertown Public Schools
Christine Trufant, Wayland Public Schools
Tony Wagner, Executive Director, ESR
Anita Wah, Harvard School of Public Health, Cambridge
Greg White, Student, Newton North High School

Affiliation is for identification purposes only. Unless otherwise indicated, the identifying school systems are in Massachusetts.

DAY OF DIALOGUE -- FEEDBACK

NAME _____ SCHOOL _____

ADDRESS _____ SCHOOL ADDRESS _____

_____ _____

SUBJECT _____ AGE/GRADE LEVEL _____

1. Are you a member of ESR? Yes ( ) No ( )

2. How did you learn about Day of Dialogue? _____

3. How did you participate? (Please check appropriate boxes)

   Read the guide ( )

   Participated: with students ( ) how many? _____
   with teachers ( ) parents ( ) others ( )

   Please give a brief description of what you did on the Day of Dialogue.

_____

4. Do you plan to continue to use Day of Dialogue materials or to continue your dialogue in any other way? Yes ( ) No ( )

5. Would you be willing to be contacted as a resource person for further evaluation? Yes ( ) No ( )

6. Would you like to be listed as a participant in the Day of Dialogue? Yes ( ) No ( )

7. Is there additional support with which we can provide you? _____

_____

Attach or please forward your own activities to be included in the next manual edition.

Please send us any publicity (news clippings, etc.) about what you did on the Day of Dialogue.

We welcome your suggestions and criticisms. Please comment on back.

Please return to: Educators for Social Responsibility, 639 Massachusetts Avenue, Cambridge MA 02139.

EDUCATORS FOR SOCIAL RESPONSIBILITY

639 Massachusetts Avenue, Cambridge, MA 02139, (617) 492-1764

September 8, 1982

Dear Educators and Parents:

We have selected October 25, during International Disarmament Week, to focus on the role that teachers and parents can play in supporting and educating students about the issues related to war and peace.

The choice of our title, "Creating Our Future: A Day of Dialogue," reflects our belief that engaging in dialogue is the best means we have to resolve differences -- from person-to-person disagreements to international disputes. By participating in the Day of Dialogue, you join thousands of others across the country in expressing concern over the danger of nuclear war.

There are no simple solutions to the issues surrounding the nuclear arms race. The Day of Dialogue is, however, a starting point.

This resource guide is a beginning -- a first step in an ongoing effort to raise issues related to nuclear war in classrooms, schools, and communities. It represents a diversity of thought and experience; over sixty educators, students, parents, and concerned citizens have contributed to the Guide. Use it as a source of ideas and share it with your colleagues and friends.

In this Guide, you will find sections dealing with the following:

- the psychological effects of the arms race on children;
- a study guide written by the Union of Concerned Scientists;
- suggestions about how to organize for the Day of Dialogue in your school or community;
- developmental considerations of what may be age-appropriate;
- a wide variety of classroom activities;
- a poster.

We have bound this so that you will be able to supplement the activities section with ideas and materials from our newsletter and other publications.

We have also included a feedback form. Please use it to give us your reactions, your suggestions, and any additional activities that you have found effective. We would like to add your name to our list of participants and credit your contribution when we prepare the next edition.

Remember that there are no "experts" in this sensitive and difficult field. Your own willingness to join with us in exploring ways to deal with our students' concerns is enough to start.

We have assembled these materials and initiated this Day of Dialogue confident that our efforts, combined with yours, will make a difference in creating a safe and peaceful future. Thank you for your concern and support in carrying this dialogue into your classroom, school, and home.

Educators for Social Responsibility

A DAY OF DIALOGUE

PLANNING & CURRICULUM RESOURCE GUIDE:

DEALING WITH ISSUES OF NUCLEAR WAR IN THE CLASSROOM

EDUCATORS FOR SOCIAL RESPONSIBILITY
639 Massachusetts Avenue
Cambridge, Massachusetts 02139
(617) 492-1764

Copyright, September 1982

TABLE OF CONTENTS

PART ONE
I Why a 'Day of Dialogue'? --p.2
II What the Research Tells Us: The Psychological Effects of the Arms Race --p.4
1. Children Already Know
2. "The Fear That Haunts Us All" by Natalie Gittleson, McCalls, May 1982
III The Day Itself --p.10
1. Getting Started
2. Possible Plans for the Day
3. Organizing Hints
4. Meeting Resistance
5. Mobilizing Support
6. The Morning After
IV Nuclear Weapons and Nuclear War: A Study Guide with Glossary of Terms --p.23
(contributed by the Union of Concerned Scientists)
1. Weapons effects and background information on nuclear weapons
2. Chronology of the arms race
3. Comparisons of military strength; who's ahead
4. Strategic policy
5. Close calls and mistakes
6. New weapons systems and developments
7. Economic trade-offs
8. Solutions, treaties, and verification issues
9. Glossary of terms
V Supplementary Materials --p.40
1. The Effects of Nuclear War on Children: A Research Bibliography
2. A Superintendent Gives His Reasons for Teaching About Nuclear Issues
3. Sample Letters to Faculty Members
4. Sample Publicity Flyer
5. Sample Letter to Superintendents and School Boards
6. Sample Letter to Parents
7. Sample Resolution for City Council, School Board, or Teacher Association
8. Sample Letter to the Editor
9. Sample Press Release with Supporting Articles for a Press Packet

PART TWO -- Dealing with Issues of Nuclear War in the Classroom
I Introduction --p.54
II The K-3 Classroom --p.55
1. Developmental Factors
2. Starting Points
3. Activities: Books, Songs, Creative Writing, Story Telling, and Art
III Grades 4-6 --p.77
1. Developmental Factors
2. Starting Points
3. Activities: Brainstorming, Monsters, Stories, Negotiating, Cooperative Games, and Others
4. Follow-up Activities for Information, Expression, and Action
IV Grades 7-12 --p.95
1. Developmental Factors
2. Starting Points
3. Teaching About Dialogue
4. Using Community Resources
5. Using Printed Materials
6. Content Area Topics
7. Taking Action
8. Projects for Further Research

PART THREE

I Selective Annotated Bibliography --p.194
1. Books for Children
2. Informational Materials on Nuclear Issues for Adults/ Teachers/High School Students
3. Books on the Pedagody and Psychology of Teaching About War and Peace
4. Curricular Materials

II National Resources and Organizations--p.204

III Audio-Visual Materials: Media Network Guide to Disarmament Media --p.210

PART ONE

I. WHY A 'DAY OF DIALOGUE'?

"The unleased power of the atom has changed everything save our modes of thinking and we thus drift toward unparalleled catastrophe."

-Albert Einstein

As teachers, no matter what subject or grade level we teach, one of our main purposes is to encourage the growth and development of informed and active citizens.

The possibility of nuclear war is on the minds of most young people. Recent research by Drs. William Beardslee and John Mack, in a study entitled The Impact on Children and Adolescents of Nuclear Developments, found that even young children know about and fear the danger of nuclear disaster. Students believe that weapons are here to stay, that peace is the time between wars, and that warring is human nature. We feel it is necessary to explore and question these beliefs with students in schools so they can become less despairing and frightened, more active and effective on their own behalf. The evaluations from courses such as "Facing History and Ourselves: Decision Making in a Nuclear Age" indicate that students feel empowered after studying the facts and options about nuclear weapons. A high school junior wrote: "I was nervous about taking this course because I try not to think about nuclear war but I think everyone should have a course such as this one. At least if we know what is happening or what could happen, we have a choice about what we can do. If we totally ignore it we're in big trouble."

Children need a safe place in which to express their fears. They also need reassurance that many adults are trying to solve the problems we face. It is up to us to enable our students to feel hope for the future, and to recognize that they have some control over what that future will be like. We hope that your participation in the Day of Dialogue will help you to deal with this sensitive issue in your classroom and in your community.

We chose October 25th as part of International Disarmament Week to focus national attention on the important role that educators and parents can play in supporting and educating students. We have named this day, "Creating Our Future: A Day of Dialogue." We believe that dialogue is the best way to achieve change, and the only approach to nuclear warfare. If we, and our students, and the community around us can achieve effective dialogue on October 25th, then we shall have taken the first steps toward creating a safe and peaceful future.

This Day of Dialogue may represent your first step in raising nuclear war issues in your school or classroom. You may want to start simply with a class discussion or a meeting of interested teachers, administrators, and parents. Whatever it is that you choose to do, it is at least a beginning. The process of effectively raising nuclear issues in your school will take time and thought, but should be an enriching and empowering experience. We agree with Dr. Robert Sperber, former Superintendent of the Brookline, Massachusetts public schools, that "Teaching about the nuclear age will give us a

deep sense of helping to preserve the human race." Use this Day of Dialogue to start this education or, if you have already started, to take a significant step forward in organizing a more thorough and systematic way of addressing the issue in your school.

Because the nuclear issue involves a serious threat to our survival, it is a compelling and emotional one. It is also highly complex. We need to consider questions such as these:

How can we overcome the fear, denial, and powerlessness that people experience in discussing this issue?

What is educationally appropriate for different grade levels?

What is and is not appropriate for teachers to discuss with students?

How can we teach critical thinking, decision making, and responsibility for participating in the democratic process?

How can we nurture dialogue and debate while encouraging educators, parents, and students to stand up for what they think is right?

How can we help students and adults see that their acts create the world as it is and that they can reshape it if they wish?

How can we be realistic about the dangers while giving ourselves and our students a renewed sense of hope and commitment?

How can we broaden students' perspectives to include the future of the globe?

Especially in time of budget cuts, low morale, low respect for teachers, and pressures from a range of sources, how can we afford the time or the money to include these kinds of social issues in an already tight curriculum?

You don't need to know the answers to these questions to begin to raise them! Together with our students we can explore our feelings, discover alternatives, confront the threat of nuclear weapons, and think about positive solutions. What is truly important in a democratic society is that we begin to raise these questions with our friends, colleagues, students, and neighbors so that we can move beyond our current state of helplessness and apathy. Your concern for a safe and peaceful future, your appreciation of how important this issue is to the survival of our civilization, and your willingness to struggle to answer these questions are more than enough to raise nuclear war issues in schools.

II. WHAT RESEARCH TELLS US: THE PSYCHOLOGICAL EFFECTS OF THE ARMS RACE

Relatively little research has been done in this country on the psychological effects on children of the nuclear arms race. There is some evidence to indicate that many children are anxious; are aware of "the bomb" often at quite an early age, and are increasingly concerned during the late elementary and high school years.

The physical and ecological effects of nuclear weapons have been studied in Hiroshima and Nagasaki as well as in a variety of test sites throughout the world. Psychological effects have been much less studied. What little work there is shows what Robert Jay Lifton (1968) characterizes as "a more or less permanent form of psychic numbing which includes diminished vitality, chronic depression and constricted life space."[1] Survivors have shown high levels of anxiety still reliving the horror of the event itself -- devastation, their searches for family members, the death of those around them. The suddenness, the massive scale of destruction, and the horror of the physical maiming are recurring in the recollections and their dreams.

A pervasive and chronix anxiety is produced by the survivors' having been exposed to unknown doses of radiation. They live daily with a sense that their bodies may have been affected. Many have watched others die years after detonation from the long-term effects of radiation poisoning. This legacy of dread causes many of the psychological characteristics of concentration camp or torture camp survivors.

For the general population the psychological effects of the nuclear arms race are focussed on anticipatory fears and concerns. Much has been written in the popular press about widespread fears of nuclear holocaust; little systematic research has been carried out, particularly to do with the psychological effects on children. The work that has been done in this field, however, is disquieting in many of its implications for children's growth.

1. Children Already Know

Milton Schwebel (1965), beginning his work in the early 1960's, found that adolescents perceive themselves as having the most to lose from nuclear war, since they feel they have not yet lived. He discusses their feelings of loss, their fears and anger.[2] Sibylle Escalona, also writing in the 1960's, finds many young children aware of the nuclear threat.[3] She finds that "profound uncertainty about whether or not mankind has a forseeable future exerts a corrosive and malignant influence upon important developmental processes in normal and well-functioning children." Escalona was among the first to call our attention to young children's awareness.

Beardslee and Mack, who began their work in the late 1970's, again find children aware of the nuclear arms race. More than forty percent of the students in their sample say that they were aware of the nuclear bomb through the media before they were twelve. The majority believes that nuclear war is either possible or likely, and that the country will be devastated. A majority also states that this has affected their thoughts about marriage, perhaps concerned that they

will be affected by nuclear radiation in their lifetimes. Beardslee and Mack also indicate that children are aware of and have opinions about civil defense, issues of national security, and the prospects of limited nuclear war.[4]

They speculate about the effects of this fear on children's personality development. In adolescence, children begin to imagine themselves in adult roles. What happens when they cannot see a clear future? There is some evidence to indicate that they may become more impulsive, more sensation-seeking, more oriented towards the here and now. They may turn away from adult authority, feeling that the adults have created a world they, the adolescents, do not want. Important work is being done by teachers across the country as they listen to children's fears, and research how children and adolescents are learning about the arms race. The preliminary findings of the Facing History and Ourselves Project in Brookline, Massachusetts and the Cambridge Peace Education Project indicate that the children are acutely aware of the nuclear threat and are relieved to have the schools provide opportunities for students to pursue their concerns. In the student journals from the "Decisionmaking In a Nuclear Age" course students have reported that they feel more powerful and able to confront the threat of nuclear weapons as a result of studying the issues.

These findings allow us to draw some general conclusions. First, many children are aware of nuclear issues relatively early in their lives. Second, children feel betrayed by the adults who allowed a world to develop the capacity for destroying itself. Third, students wish to have schools deal with nuclear war issues.

We obviously need to know more. We do not yet have a clear picture of children's ideas about the nuclear arms race, nor how these ideas develop and change. We do not know the impact their fears have on their thinking and planning. We do not know how adults can support children in dealing with their fears. We are confident, however, that we can begin to develop some plans of action after we have listened to our students, heard their concerns, shared our views with our colleagues, and participated in other ways during the Day of Dialogue. In order to take appropriate action, we must know more about our students and our own feelings. The Day of Dialogue is an opportunity to begin to find out.

For a detailed bibliography of the research see Chapter V, Supplementary Materials.

---

1. Lifton, R.J., Death In Life. New York: Random House, 1968. p. 504.

2. Schwebel, M. Address to Physicians for Social Responsibility Symposium, New York City. Unpublished, 1982.

3. Escalona, S. "Children In the Threat of Nuclear War." In Behavioral Science and Human Survival. California: Science and Behavior Books, 1965.

4. Beardslee, W. and Mack, J. "The Impact on Children and Adolescents of Nuclear Developments." In Psychosocial Aspects of Nuclear Developments. Washington, D.C.: American Psychiatric Association, 1981.

THE FEAR THAT HAUNTS OUR CHILDREN

It is not so much their words that strike the heart, but their faces. The reality lies there, in their beautiful, young and strangely bereaved faces. "I had nightmares of the bomb slowly floating toward me. I could feel my blood spurting all over the place. But now it's better knowing it will all be so fast. . . ." Catherine has long flaxen hair, an angelic expression and worried eyes. She is 12 years old and attends a school near Boston.

Karen—same age, same school as Catherine—looks serious, burdened, older than her years. "I used to have nightmares when I lived in Mexico [as a second grader], not about mushroom clouds but a huge cannonball the size of the earth. And I would just see black, and it would smush everything, and there would be no salvation. I had the nightmare many times. But I never talked to anyone about it. I thought everyone would think I was weird." The nightmare has subsided, but as she ponders the future, her fear remains. "What . . . if you miss the joy of having children? You can't just stop because of a fear."

Stacey, 14, attends private school in a Boston suburb: "I have nightmares not about a nuclear war but about nothing being here afterwards. Nothing is in the dream, really, like a fog. Try to picture nothing. This world is not the way it is meant to be."

Even in this time of renewed debate about nuclear power, we who have become so skilled at blotting out the imminence of danger and annihilation may be surprised by the feelings and fears, questions and chronic bad dreams that beset the very young. Many psychiatrists and other expert observers, however, are not surprised. "We adults have entered into a kind of compact with ourselves *not to know*," which children, inexperienced at such avoidance techniques, do not share, according to William R. Beardslee, M.D., and John E. Mack, M.D., Harvard Medical School psychiatrists who carried out a new study titled *The Impact of Nuclear Developments on Children and Adolescents*.

Robert Jay Lifton, M.D., professor of psychiatry at Yale University, explains that, for many grown-ups, this compact takes the form of what he calls "psychic numbing." It is the almost willfully "diminished capacity to feel" that allows us not to know—emotionally. We cannot afford to incorporate "our knowledge of the destructiveness of nuclear weapons into our emotions," Dr. Lifton believes. "If we were to allow ourselves to feel what we know, we might not be able to go on; hence, the extraordinary gap we experience between our knowledge and our feelings."

Lifton first witnessed this phenomenon while studying survivors of nuclear attack for his award-winning book, *Death in Life: Survivors of Hiroshima*. "Right after the bomb exploded, they became psychically numb. It was a defense mechanism to close themselves off from death. 'Somehow, I became a pitiless person,' one survivor told me, 'because if I had pity, I would not have been able to walk through the city, to walk over those dead bodies . . . their eyes looking for someone to come and help them.'" Our own numbing "is perhaps one way to get through daily life," Dr. */turn to page 144*

New studies show that the terrifying threat of nuclear war is disturbing children more

BEST COPY AVAILABLE

THE FEAR THAT HAUNTS OUR CHILDREN

continued from page 77

Lifton acknowledges. "But it is not a solution. Indeed, it may lead us right into extinction."

Dr. Lonnie Carton, a Boston psychologist and family therapist, puts it even more bluntly: While most grown-ups have learned to "keep preoccupied with success or making a living, the worry energy of children," unlike ours, has no release. "From perhaps the sixth grade up, they would have to live in a hermitage *not* to live with this fear."

Of course, no such emotional retreat, either real or symbolic, exists for today's children, as the Beardslee/Mack study confirms. (Their work was undertaken on behalf of the American Psychiatric Association's Task Force on the Psychosocial Impact of Nuclear Developments, whose chairman is Dr. Rita Rogers.) Because their futures are (or should be) longer than ours, children and adolescents may be even more vulnerable to nuclear anxiety" and its profound psychic damage than their elders. Dr. Beardslee, on the psychiatric staff of Boston's Children's Hospital, and Dr. Mack, author of *Vivienne: A Study of Adolescent Suicide*, found young people "deeply disturbed about the threats of nuclear war," but also admitting and articulating their fears, unlike so many of us who "resort to denial and 'psychic shutdown.' "

"The implications are disturbing indeed," Dr. Mack says. "We may be raising a generation without hope, without promise of a future, cynical about the adult world and helpless to change it." But hopelessness and cynicism notwithstanding, both he and Dr. Beardslee were sometimes astonished by the strong, often eloquent answers to questions that were asked of more than 1,000 grammar- and high-school students around Boston, Baltimore and Los Angeles. For instance:

- What does "nuclear" bring to mind?
- Do you think you could survive a nuclear attack?
- Have nuclear advances influenced your plans for the future?

Among the images that the word "nuclear" conjured up among the children in the study were: big gray clouds . . . red warning lights . . . dead wildlife and dead human beings . . . Hiroshima . . . radiation . . . cancer . . . danger . . . death . . . sadness . . . corruption . . . waste . . . pollution . . . and the "terrible, terrible devaluing of human life." One child wrote, "All that comes to mind is the world's final demise. A total kind of holocaust."

Considering the possibility of their own survival, many of the children said: "No. Even if we weren't killed, we'd all have cancer in thirty years, and our kids would be mutants (not to forget what the land would be like!)."

Here are some of the fears that they voice about their futures:

"I don't choose to bring up children in a world of such horrors and dangers of deformation."

"I have now accepted the fact that there quite possibly will be an 'end of time.' "

"It has shown me how stupid some adults can be. If they know it could easily kill them [nuclear advances and the arms race], I have no idea why they support it."

Dr. Mack and Dr. Beardslee have continued their work among young people. "Since the initial administration of our questionnaires in 1978, we have noted an *increased* preoccupation and concern with the threat to their lives that the arms race represents," says Dr. Mack. Nevertheless, the few studies concerning children and nuclear war conducted in the United States during the 37 years since Hiroshima verify that the preoccupation itself is not new. They suggest that:

- Even very young children (under eight) know about the threat, and fear the danger, of nuclear disaster.
- The menace of nuclear conflagration "weakens and impedes" the healthy establishment of personal identity at a decisive time in life.
- Children tend to see peace as an absence of war rather than as an active process of conflict resolution and cooperation, and many regard war as inevitable, necessary and likely.
- Children are still taught to think of the organized killing as a natural, perhaps noble part of human experience.

The repercussions of "growing up nuclear" go far beyond bad dreams and vague images of disaster, as studies conducted among those who were schoolchildren during the early cold-war years of the 1950s further testify. Then, the fear of a menacing Russia inspired exercises in futility like the duck-and-cover drills that Robert K. Musil remembers so well. "I particularly recall the early atomic tests on television that showed a model house erected by the Army crumbling and disintegrating in the blast," says the man who directed the documentary series *Shadows of the Nuclear Age: American Culture and the Bomb*. "It was with that awful knowledge—we were not safe at all—that I experienced duck-and-cover drills and developed an early disillusion with, even disdain for, authority." Musil speculates that "the styles and explosions of the 1960s were born in those dank, subterranean high-school corridors near the boiler room where we decided that our elders were . . . unreliable, perhaps even insane."

Michael J. Carey, a historian trained in psychoanalytic methods, was Dr. Lifton's associate at Yale when he conducted his study of the nuclear memories of 1950s children. "The bomb drills, bomb scares and images of massive death" interfered with the capacity of these children to think of death as natural. "Unable to accept it as part of life's rhythm," difficult even under ordinary circumstances, "they equated death with annihilation," Lifton says.

Four themes emerged from Carey's study that continue to haunt these men and women in their maturity:

1. *The unreality of the nuclear "force."* "This gelatinous kind of glow with an eye! H-bombs looked as if they were alive," a psychologist remembered. "It's a kind of unreality hovering over you," said a West Coast accountant. "It's not real to think about it."

2. *The unpredictability of existence.* "It's just going to kill off everything," one man said. "It will cause the atmosphere to change and the winters and the summers," a nurse's aide from Mississippi predicted. "And the trees will not know what they do"—an almost Biblical image of nature demented in the wake of a nuclear war.

3. *The perception of the world as insane.* "We remain alive at the whim of a craziness that can make us disappear in an instant," as Dr. Lifton put it. A theater director from Iowa wryly remembered pocket meters to measure radiation: "I could never understand what good it was to *tell* you that you were about to die."

Talk of survival after a nuclear exchange seemed like a cruel hoax to those interviewed," Carey says.

4. *The bland vocabulary of nuclear annihilation:* stockpiles, exchanges, scenarios, nukes, the button and the mushroom cloud. Words and images like these seemed to diffuse the threat, blunt the reality and offer false comfort. In fact, many of Carey's subjects acknowledged "fascination" with the whole phenomenon. "Just the tremendous power of the thing," said a poet in Philadelphia of his view of the mushroom cloud, "the incredible colors of the blast and the huge majesty!" For Dr. Lifton, turning the bomb into a "new technological deity" has become "industrial society's ultimate disease."

In light of all this evidence, which their own recent study confirms, Drs. Beardslee and Mack now question whether, among the young, the ever-more-appalling dimensions of the nuclear-weapons race, "are having an impact on the very structure of personality itself." At the center of every child's personality lies the "ego ideal," which, the psychiatrists explain, "is the image we carry within us of our best selves, or of what we would wish to be like." It is the outcome of a series of compromises that all children make with reality, starting at earliest infancy. Somehow they merge their young wishes and desires with the understanding that perfect fulfillment is, for the time being, impossible.

All children endure many classic disappointments while growing up, the physicians point out: the realization that they are relatively small and weak; for girls, the knowledge that adult sexuality and child-bearing are beyond reach; for both sexes, the knowledge that other children may be smarter, better athletes and even more lovable.

Crucial to development is a vision of the future in which they can see themselves possessing what they cannot now have—when at last they may become what they cannot yet be. These

goals—eventually realizable and worth struggling to achieve—compose the foundation of a healthy "ego ideal." But to build such an ego ideal, children must perceive life as stable and enduring, and they must perceive a future on which they can, to some degree, rely.

Parents have the obligation to consider an essential question: What may happen to ego-ideal formation in children, such as those in the APA study, who view society and its leaders cynically and their own futures as traumatically uncertain—particularly when they view, as the cause of that uncertainty, the folly and "stupidity" of the adults around them?

How has the spectacle of a whole society "sitting back and doing nothing as we prepare to blow ourselves up," in Dr. Lifton's words, impinged on the developing personalities of the young? Not only he, but every one of the psychiatrists who spoke out at the recent Boston conference on "The Threat of Nuclear War: Its Biological, Psychological and Social Dimensions," view it as a major cause of the mounting anxieties and consequent behavioral ills that have come to characterize so many members of a generation now in their teens: their sense of futurelessness—that nothing lasts, therefore all is meaningless; their fixation on space as a safe haven, a sanctuary, where survivors can remake their lives once we destroy the earth; the rise of cults, fundamentalism, apocalyptic movements and other rigid religious modes that claim young minds so needful of reassurance; the desperation that leads to drugs, to the search for altered consciousness and, sometimes, to suicide. All this may come, in large part, from the threat that nuclear war imposes, physicians say.

How can we help our children survive with healthy minds and healthy spirits? Perhaps paradoxically, by *not* trying to shield them from awareness, according to the behavioral experts. The best protection we can give is knowledge and understanding.

Helen Caldicott, M.D., mother of three and president of Physicians for Social Responsibility, says, "To know is terrifying, but not to know may be fatal. Most children are already very well-connected with what could become the ultimate reality. They have heard already that a single bomb could turn fall-out shelters into crematoria, demolish hospitals, break down our biologic immune mechanisms that breach the thin, protective wall against plague . . . and cause the survivors, as it has been said, to envy the dead.

"This nuclear vision may overwhelm the imagination, but the subconscious cannot block it out. And the young, with their higher degree of susceptibility, their more active imaginations, also have more fragile defenses. Some begin to believe it's easier not to grow up. Their angers, hostilities and fears start to motivate against living out the rest of their lives. The future seems too terrifying, too negative, too black. Others find it easier to band together in a peer group and hate the enemy. Often they define the enemy as the entire adult world."

The battle to blot out the bitter truth is inevitably a losing one, Dr. Lifton warns. "When parents shield their young, to protect them, it's usually an expression of their own adult 'numbing,' " he said. "It's an attempt to push the subject away."

Children who adopt the self-numbing attitudes of their parents often become emotionally insensible in other areas of life, he said. "And even if you succeed temporarily in 'protecting' your school-age child, it's only a matter of time until some terrifying image, some deadly bit of information, leaps out from the television or the news headlines." Far better then—if also far more difficult —to deal with the nuclear issue openly and honestly. "There has been too long a conspiracy of silence," Lifton believes. "And this conspiracy functions in families as well as in the public domain."

Of course, parents should exercise common sense and sensitivity. "Naturally, you would not expose a three-year-old to a film that shows the atrocity of Hiroshima," said Dr. Lifton, the author, most recently, of *The Broken Connection*. But by the time that child reaches 13, he has been struggling for some time to cope with the issue of mass destruction. His appetite for understanding, his intuitive grasp of fundamental ethical and moral dilemmas may never burn as bright again as it does in early adolescence. Grown-ups owe it to the young to examine with them the basic principles that underlie the revived nuclear debate.

George Kennan, former ambassador to the Soviet Union, has recently described our global plight in a way well within the intellectual reach of any young person: "This entire preoccupation with nuclear war," a preoccupation which appears to hold most of our government in its grip, "is a form of illness. It is morbid in the extreme. There is no hope in it, only horror. . . . Can we not cast off our preoccupation with sheer destruction—a preoccupation that is costing our prosperity and preempting the resources that should go to the solving of our great social problems?"

Hope *does* exist—in our historic ability, as a society, to get well, to recover from the illness, Dr. Mack points out. "Mankind has rid itself of other pandemics, like smallpox and plague; of social evils like slavery; and of mass psychoses such as the burning of hundreds and thousands of human beings by society in the sixteenth and seventeenth centuries, under the delusion that they were witches in league with the devil," he reminds us. "We can rid ourselves of the current irrationality that underlies the proliferation of nuclear weapons as well. But to do so, we must first know our ignorance and fears and handle their reality."

At the physicians' conference in Boston, Jerome Frank, M.D.—professor emeritus of psychiatry at Johns Hopkins University and author of the classic work *Sanity and Survival: Psychological Aspects of War and Peace*—spoke of some of the "current irrationalities" of this nuclear age we can, and should, scrutinize with our children.

How, for instance, shall we help children understand the paradoxical behavior of our leaders? "All of them believe that nuclear war would be an immeasurable catastrophe, yet they keep on piling up nuclear weapons, which, of course, makes war more likely all the time!" Dr. Frank points out. The major illogical process at work here involves the human need to "tame" a new, unprecedented threat by making it seem like an old, familiar one. Thus, our leaders perceive nuclear weapons as merely larger conventional ones, reluctant to acknowledge that they are of a totally different order. "The piling up of weapons *decreases* everyone's security, including that of the possessor," Dr. Frank observes. "The more weapons and the more persons who handle them within nations, the greater the likelihood that one will be fired by malice or by accident, thereby triggering computers poised to launch a nuclear exchange."

The second psychological process that concerns Dr. Frank—and that often confounds the instinctive morality of the young—regards what he calls our "image of the enemy. Its most striking aspect is that the image is always the same, no matter who our current enemies may be. *They* are invariably treacherous, cruel and warlike, while *we* are invariably peace-loving, honorable and humane." During World War II, when Russia was our ally, we applied the most chilling terms of opprobrium to Germany and Japan. Today, we apply to the Russians the very same epithets that, not so long ago, we gave to the Germans and Japanese. How can children's forthright moral vision fail to be confused?

Moreover, the implications for the future of such black-and-white modes of thinking are grave. "If we insist on demonizing Soviet leaders—on viewing them as total and incorrigible enemies, consumed only with their fear or hatred of us and dedicated to nothing other than our destruction—that, in the end, is the way we shall assuredly have them," George Kennan has warned.

Third, Dr. Frank attacks the fallacy that obstructs so much contemporary thought, including that of children: Because man is naturally violent, war is inevitable. "This makes no more sense," he says, "than believing that because man is a carnivore, cannibalism is inevitable. . . . Social institutions wither away when they lose their function. And war is rapidly losing its function as a means of solving political disputes."

continued

Mothers, more effectively than anyone else, Dr. Lifton believes, can expose such "terribly dangerous falsehoods" as those that Jerome Frank held up. They can help their children sharpen the mental and emotional tools they will need to bring this chaotic world that they inherit from us closer to peace. "Every family is a place for the potential exchange of information, a rich source of constructive attitudes and action," he says.

We can reassure the young by our own involvement and by opening ways for them to participate in the search for solutions and in the nuclear debate that must so profoundly affect the rest of their lives. At Brookline High School, a 13-year-old boy elected a course on "Decision-Making in a Nuclear Age." He reported to his parents that, although he was "scared" by what he learned about the nuclear threat, he was glad that he took the course. "Now I can try to do something to stop it."

We can struggle together, as families, over hard questions like prejudice, violence, racism, nationalism versus internationalism, the way we see the enemy, whom we hate and why—questions not susceptible to easy or even to "right" answers. We can determine to listen to our own voices, to speak out of our own convictions and to say to our children what we honestly feel.

As parents, we can press for nuclear education as an aspect of current events or contemporary history in the secondary schools in our own communities. "Education itself can change the political climate, as it has already begun to do," Dr. Lifton says. "But it is an intellectual and moral scandal that ninety-nine and nine-tenths percent of American secondary schools still entirely avoid the subject. Although it remains the paramount problem in our culture and threatens to eliminate humankind, there is almost no systematic nuclear-weapons education, below the college level, in our teaching institutions."

Here and there, however, models do exist for what grown-ups and children can accomplish when they take action together. At the Northfield-Mt. Herman School in Massachusetts, with the aid of the school chaplain, they organized STOP, Students and Teachers Opposed to Nuclear Weapons. In Brookline, children on the grade-school level engaged in a letter-writing exchange with their peers in the Soviet Union. "This is who I am; I reach out to you as a human being" was the gist of the American children's messages. They described everything about their lives, from playing hockey to playing hooky.

Young people encouraged to use their energies in the service of such larger goals outside themselves, supported by like-minded adults, discover a kind of fellowship that is singularly enriching and that may provide a crucial bulwark against feelings of despair, hopelessness and helplessness.

Beginning on Sunday, April 18th, Ground Zero Week opens across the country. ("Ground Zero" refers to the point of detonation of a nuclear weapon.) This is one of the first hopeful signs of "a shift of consciousness, a turn from fragmentary to more formed awareness" on the part of Americans, as Dr. Lifton says. In churches and synagogues, schools and universities, libraries and art centers, at civic-group meetings and in private homes, people of all ages can learn together about the proliferating problems of nuclear war that we face. Here, as in all things, knowledge—augmented by understanding—is power. Ignorance enhances powerlessness. Only by directly confronting the overwhelming reality of our time, can we, as well as our children, begin to experience a sense of control over our own destinies—no longer immobilized, and no longer, as one 15-year old said, "so very alone with my own fear." ■

EDITOR'S NOTE: *The Beardslee/Mack study, titled "The Impact of Nuclear Developments on Children and Adolescents," appears in the A.P.A.'s Task Force Report #20,* The Psychosocial Impact of Nuclear Developments. *It will be available in June from the American Psychiatric Association, 1700 18th Street, N.W., Washington, D.C. 20009. For information, write to the Publications Sales Division.*

III. THE DAY ITSELF

1. Getting Started

There are two conclusions that Educators for Social Responsibility (ESR) has reached which may be helpful as you start to raise the nuclear war issue in your school. First is that students want to know the truth about nuclear weapons, hear different sides of the debate on solutions, and decide for themselves what ideas to believe and support. Therefore, it is important and educationally sound for us to present a variety of sides. It does not mean that we do not take a stand for what we believe is correct, but that we provide the opportunity for students to clarify their own beliefs.

The second conclusion is that there is a great deal of agreement among educators about the educational importance of the nuclear war issue when it is framed in a way that presents various points of view and allows students to make up their own minds. Choosing this approach relieves the -- or some of the -- tension created by the fear that students are being turned into the political instruments of adults or are being fed anti-government propaganda. It allows us to broaden our base of support and build coalitions of support rather than coalitions of opposition. This approach relies on a basic trust that through sincere educational dialogue and debate, the truth will surface. It also relies on the belief that what is truly important is a sound educational program that deals with students' fears, questions, and concerns, and educates them about the implications of living in a nuclear age. If we allow our activism to be focused on the importance of raising the issue, we will act as positive role models for our students and other adults, and we will reduce the likelihood of opposition and subsequent polarization.

The Day of Dialogue is simply a time to begin raising the issue of nuclear war in your school. One way to start is to *listen. Listen to your students' questions, concerns, thoughts, and fears.* This not only serves as the basis for a moving discussion, but it also allows us, as educators, to understand more deeply the nature of our students' needs. Listening will help us plan our classes and curriculum more appropriately. The more teachers you can involve in this listening process, the better. The classroom and school activities that we suggest will give you some ideas of how to begin. They are as simple as a one-day activity or discussion for a single class, and as comprehensive as a student survey of high school students.

It is important to record your students' concerns in some way. Those concerns will form the base of your organizing efforts and your curriculum planning. Make a list of student statements that you can share with parents, teachers, administrators, and the press.

Another way to begin the Day of Dialogue is to *talk with other educators, administrators, parents, and school board members:*

1. what children and adolescents are thinking and feeling.
2. the educational importance of the nuclear issue.
3. what is currently being taught in the schools.
4. what might be taught on the nuclear issue.

5. how, when, and why curricula should be introduced in schools.

This might first take place in private conversations with your colleagues, or you might organize a meeting after school or in the evening. Try to involve a number of key decision makers as soon as possible. You will want both their advice and their investment in the process. There is a longer discussion of how you might run this type of meeting on page.

Once you have begun to raise nuclear issues in your school, it is important to *establish a means of carrying your efforts forward.* This may mean establishing a planning committee with set goals and deadlines, planning a future school-wide event or an in-service day, or establishing an ESR chapter.

The nuclear issue cannot be handled in one day, one week, or even one month. You will need to spend time helping your school approach this process in a systematic way. It may involve, for instance, finding appropriate places in the curriculum and willing teachers to work on it, reviewing existing curricula, or holding workshops for teachers. You will need to build on your initial efforts by setting a plan for the future that is appropriate for your school.

2. Possible Plans for the Day

This resource guide is designed to help you plan activities that will fit the needs of your own school. The level of awareness about the issue will vary from community to community. Some have hardly dealt with it, while others have active peace organizations that have publicized the issue widely. This resource guide is really a collection of possibilities; no single plan will fit all situations. What follows are some general ideas of the variety of activities that can take place on your school's Day of Dialogue. They are not in order of complexity or preference, nor are they mutually exclusive.

1. Hold a classroom discussion or choose a classroom activity to assess what students know and feel about nuclear weapons and the threat of nuclear war.

2. Involve your department or a group of interested teahcers in devoting one day to listening to what students feel and know. Meet after school to discuss what you found out.

3. Involve your school in a school-wide survey of student concerns, or an activity that assesses these concerns. Meet with a group to discuss the results and possible directions the school might take.

4. Call a meeting of interested educators to discuss strategies for raising the issue in your school.

5. Have a group of interested teachers phone or meet with administrators and school board members to discuss how best to approach nuclear issues in the school curriculum.

6. Spend a day listening to students' questions, concerns, and thoughts. Then hold a parent, teacher, and student meeting in the evening to discuss how best to educate students. Devote a meeting of the PTA to discussing this issue.

7. Establish a planning committee to start work on developing classroom materials on the nuclear issue and finding ways to integrate them into the curriculum.

8. Invite a speaker to talk to your faculty about education and nuclear issues.

9. Organize a teacher in-service workshop on teaching about nuclear issues or initiate a study group.

10. Meet with a group of interested students after school.

11. Bring in a speaker or film, or hold a debate, for an assembly of students. Meet with interested students and faculty after school.

12. Organize part of the day or the whole day for a symposium on the arms race and nuclear weapons. Topics of discussion might include the following:

    * the physics of an explosion
    * the medical, social, and environmental effects of a nuclear war
    * the history of the arms race
    * the basis for the fear of the Soviet threat
    * proposed solutions and actions people can take to become involved

13. Use the day to begin a week-long series or weekly series of films, speakers, and workshops on the arms race, including a dialogue to help students process the information.

3. <u>Organizing Hints</u>

Here are some thoughts to keep in mind about organizing as you prepare for your Day of Dialogue:

* You don't have to be an expert on the subject to organize a Day of Dialogue. You need to be just concerned enough about the arms race and the threat of nuclear war to raise the issue. The purpose of the Day of Dialogue is to discover and learn together.

* Build a base of support around the importance of teaching about nuclear war issues.

* Avoid an adversarial position with people who differ with you. Try to bring them into the process by finding agreement on the educational importance of the issue. Education can be a powerful force, for it can change people's thinking and give them the confidence and motivation to take action.

* Don't avoid taking a stand. Be up front about your concerns and your feelings while respecting others who hold differing opinions. No one wants a nuclear war, but people differ on how best to avoid it.

* Determine who the key decision makers are in your school. Talk to these people and include at the earliest possible stage those who are interested.

* If you do not find much support in your school you can begin simply in your own classroom and approach those teachers who you feel may support you. Ask them to meet with you to talk about an appropriate approach.

* Do not assume that the administration will oppose you. Find out what they feel about the issue and what their concerns are about addressing it in your school. Work cooperatively to whatever extent you can.

* Circumstances vary from school to school. Decide what is most appropriate for your individual situation and plan accordingly.

* Form a planning committee. No matter how small, it will provide ideas and emotional support.

* Plan well: How much will it cost? Will it take time from the schedule? How will the schedule affect others? If it does, how can you take care of those people? What kinds of commitments will you be asking people to make? Are there stages to your approach? How will you continue the momentum and build a broader base of support? How can students be involved in the planning? Can the teachers' association or union be involved?

* *Do not put off your first meeting.* Despite the pressures of the beginning of school and the day-to-day constraints of teaching, do not delay in starting. At each meeting set a date for the next one and be clear about what needs to be done before then.

* Construct a time line with goals and target dates. People feel a great deal of satisfaction in accomplishing something. This will give a concreteness to your efforts.

* Encourage others to join in your effort and create space for them to share their ideas and their skills.

* At the junior high and high school level, invite students to help plan. They may be as concerned about the issue as you are and will appreciate the opportunity to be involved. They may organize other students into a study or action group as well as participate with teachers.

* You have a right to be enthusiastic about the importance of this issue. Do not apologize for your efforts. Your mood will come across to the people to whom you talk, and they will respond to it.

4. Meeting Resistance

The nuclear issue generates emotional responses. Many people fear the horror of nuclear annihilation, and want to protect their children and themselves through a severe reduction or elimination of nuclear weapons. Others distrust and fear the Soviets, fearing that the United States may lose its dominant position in world politics without nuclear arms: they feel the need for gaining self-respect as Americans through military strength. Some feel anger at the injustice of increased spending on the military when basic human needs are unmet, both in this country and throughout much of the world. Some view raising this issue as a questioning of our leaders, experts in government, and the patriotic defense of our country. Others simply feel it is inappropriate to raise this issue in schools.

Since a discussion of nuclear weapons and policies can provoke such a variety of deeply felt responses, it is likely that you will meet with resistance from some individuals when you try to talk about these issues. Often the resistance is based on a strong set of beliefs about politics, children, and education. It is our challenge to respond to resistance in a way that is not confrontive, but rather helps all concerned to explore the educational importance of the issue.

Resistance often comes in the form of questions. To help you respond to these, we have included some common questions and some possible responses.

1. Won't raising this issue in schools create more fear in students?

We know that the fear of nuclear war is already on student's minds and is profoundly affecting their development. Children are made aware of the destructiveness of war and the potential of a nuclear war by the inundation of images carried by the media.

As educators we must begin to understand what effect the fear of nuclear war has already had on our students and help them overcome those aspects of fear that come from ignorance and leave them feeling powerless. It is also important that we handle this in an age-appropriate manner. It would not be appropriate to educate young children to the explicit horrors of nuclear war; it would be appropriate to help them understand the sources of conflict among people and among nations, and the means of peacefully resolving those conflicts. It would also be appropriate to show them that adults are involved in protecting their future and give them hope for a safe and peaceful future.

2. Isn't this an issue for adults, not children?

Children are now growing up in a nuclear world. Many already experience a deep sense of fear and hopelessness that comes from a feeling that they have no control over their future. If our role as educators is to prepare them for living in this world, we must help them acquire the knowledge and skills to cope with decision-making in a nuclear age.

Secondly, dealing with an issue that is being given such national attention brings relevance to the material students are studying. It will help them think critically, become creative problem-solvers, and assume responsible roles as citizens.

3. Isn't this a political issue that should not be presented in schools?

It is a political issue, and a controversial one, which is all the more reason to clarify it in a setting which fosters in-depth study of the issue, open debate on the alternatives, and reflection on intelligent choices. In this setting, students learn what it is to be responsible citizens and to participate in our national decision-making process.

4. Are you going to present both sides?

There are many more than two sides to this issue. It is extremely complex. Presenting the reasoning for all these sides is a vital part of helping students make their own decisions.

5. At a time of budget cuts, low morale, low respect for teachers, and demands to include a wide range of special-interest topics into an already tight curriculum, how can we find the time and money to spend on nuclear war issues?

In 1983, 61 percent of every federal income tax dollar will go to military-related spending. The cost of the arms race is affecting the quality of education and reducing the number of teaching positions available. We need to consider carefully if this is the way we want to spend our tax dollars. [The Massachusetts Teachers Association, 20 Ashburton Place, Boston, MA has prepared a short booklet entitled "Changing Priorities: Education vs. Military Spending in Massachusetts" that may help you in presenting this argument.]

There is no more critical or immediate issue than the threat of nuclear war. Teaching about this issue will help teachers feel empowered because they are helping to clarify an issue upon which may hang the future of the human race. It will also help to revitalize the school by demonstrating that it is a vital social institution that plays a key role in helping teachers and students gain some control over the experience of living in a nuclear age.

In a statement written in support of developing and implementing the "Decision-making in a Nuclear Age" curriculum written by the Facing History and Ourselves Project, Brookline Superintendent Dr. Robert Sperber explained his own rationale for teaching about nuclear issues. His statement eloquently responds to many of the questions that are raised about bringing the issue into our schools. It appears in Chapter V, Supplementary Materials.

5. Mobilizing Support.

The way you organize for your Day of Dialogue will depend on what you feel is appropriate for your school and community. To broaden your base of support you will need to involve other teachers, your superintendent, school board members, your teachers' association or union, parents, the city council, and/or the press.

Teachers

Begin by talking with those teachers you think would be interested. Share this resource guide with them. As soon as you can, invite other teachers to participate. In Chapter V, Supplementary Materials, are examples of letters that you can place in teachers' mailboxes. You may want to include "The Fear That Haunts Our Children" (see page .)

If you feel that a more direct political and economic appeal would be effective, adapt the sample flier in the Supplementary Materials Chapter.

Another way to involve your colleagues is to invite a speaker from a community group to speak to your faculty on education and the threat of nuclear war. Physicians for Social Responsibility has resource people and speakers available in many communities around the country, as do many other groups. At the end of such a meeting announce a follow-up meeting for those teachers interested in discussing how best to educate students and themselves about this issue.

Superintendents and School Boards

Key decision-makers in some systems may be the principals or department heads. In others it is the superintendent. In still others it is the school board. To build a stronger base of support it is important to approach these policy makers. Do not assume that they will oppose you. Approached in a non-threatening way, some of them may become your strongest supporters. It is important to choose the appropriate people and an approach that will allow them to feel a part of your work. The most effective approach is personal: someone they know talks with them, explains why it is educationally important for the schools to address this issue in some systematic way, and seeks their advice.

Even if you do not know these people personally, you can involve them. Write, asking either to meet with them or inviting them to an evening meeting with parents and teachers. There is a sample letter in Chapter V, Supplementary Materials.

Parents

While we do not wish to frighten students, raising the nuclear war issue in school will allow students to express their fears. Many students will have already expressed their concerns at home. We can help parents respond to their children in a positive way; we need parents' support for our efforts in school.

You may already have support; many parents are concerned about how to talk to children about their children's fears of nuclear war.

Some ideas for approaching concerned parents follow:

1. Talk to parents you know and parents who are active in the community and involve them in planning a meeting.

2. Send a notice to local disarmament network groups to publicize a meeting of parents to talk about what can be done in the schools.

3. Talk to the leadership of your PTA about using its next meeting to discuss how best to educate students about nuclear issues.

4. Ask your adult education program to provide or recruit a speaker to talk to parents on the topic and announce a meeting of interested parents at the end of the speech.

5. Plan an open meeting for parents, community members, teachers, and students to discuss the role of the school in this issue and announce it through a letter sent home with your students or in a press release to the newspaper.

In Supplemntary Materials, Chapter V, you will find a sample letter to parents.

An Initial Meeting

The size and setting of a first meeting can range from an informal conversation among a dozen concerned teachers, parents, and older students in a living room, to a large gathering in a school auditorium with a film and/or presentation by invited speakers. Regardless of the size our experience suggests that there are several important principles to keep in mind:

Setting the Tone: One person should be designated moderator for the discussion and should begin with a brief explanation of the purpose of the evening. (It may be better if the moderator is <u>not</u> a teacher, for a teacher may, at times, feel compelled to defend colleagues or curricula.) Three key questions have emerged from meetings which we have been asked to moderate:

1. What are students' questions and concerns about nuclear war and nuclear weapons?

2. What is currently being taught in schools at different grade levels?

3. What would we like to see taught, and how do we begin developing and piloting new curricula?

If your group does not feel that it knows enough to discuss children's questions and concerns about nuclear war issues, you might want to start with the second question. However you start, try not

to let the discussion bog down in a debate about what political point of view should be taught (e.g., pro-freeze, peace through strength, unilateral disarmament.) *Keep the focus on children's needs*, rather than on adults' opinions about the issues. Agree at the outset that we do not want to propagandize in the classroom, but instead, want to give students the information and support they need for making their own decisions. It is our goal both to teach the skills of critical thinking and to nurture hope for the future.

Involving Students: Some people initially may feel uneasy about inviting students to an evening discussion. We have found, however, that even children as young as eleven or twelve can contribute a great deal when they are encouraged to speak up. The student who complains of having covered all of World War II in a history course in two days in June often makes the most compelling case for the issue to be treated with greater thoroughness.

One note of caution: high school students are sometimes overly critical of their teachers or courses because they are idealistic and want more than they have received. Try not to let "You've let us kids down" become a dominant theme. This is an important point of view for adults to hear, but high school students may not realize how hard it is to deal with the nuclear issue in the classroom; nor do they always recognize their teachers' efforts.

Avoiding Adversarial Discussions: Some people who feel very strongly about the issue tend to push harder than they need to. Try not to let the topic become "Why aren't schools doing more?" but, rather, keep it objective: "How is the issue being dealt with now?" "How might the schools' and parents' efforts to help children deal with nuclear issues be improved?" The moderator may have to intercede and remind people of the purpose of the discussion. Our experience has been that school administrators and teachers welcome support and advice about how to deal with these issues, *when they are convinced that no one is grinding an axe or looking for a scapegoat.*

Supporting Teachers and Administrators: In the later part of the discussion, the moderator should find time to ask the teachers and/or school administrators present what kind of help or support they want. We have found that sometimes teachers want parents to write to the school superintendent asking that more be taught on the nuclear issue, or that school superintendents need parents in effect to lobby the school board for its support so that the superintendent doesn't feel alone in taking risks. *Listen carefully for ways to support the best of what may already be happening in schools.*

Following Up: Leave the last half hour of a two-hour meeting to talk about the next steps. Look for concrete suggestions:

* forming a student-teacher study group or a parents' study/support group
* writing letters to school administrators
* developing a questionnaire for students
* forming an ESR chapter or, at the high school level, a Student/Teacher Organization to Prevent Nuclear War (STOP) chapter
* holding a symposium

Ask for individuals to take responsibility for chairing sub-committees or accomplishing specific tasks. Try to set a next meeting date for people interested in working on follow-up activities. And don't forget to get a list of names, addresses, and phone numbers of everyone who attended the meeting, and of those who want to keep working on the issue.

One final caution: leave time for people to ask plenty of questions during the meeting and to talk informally over coffee afterwards. If you have a panel presentation or film, limit it to the first 45 minutes of the meeting. Try to keep the formal part of the meeting to no more than two hours, and announce your ending time at the beginning to help people use the time well.

We at the ESR National Office have attended a number of meetings organized by teachers or parents like these. All of them have been interesting and productive. You don't have to have a lot of experience to run a good meeting, but you do need to be clear about the purpose of the discussion and what you hope to accomplish. Don't be afraid to offer leadership when you feel the discussion is off the topic.

Good luck, and let us know how it goes!

Professional, Political, and Community Groups

If you have built a base of support, you can bolster -- and formalize -- your efforts by presenting official recommendations to your teachers' association, school committee, and/or city council for approval. This serves to involve and educate more people: it also gives an official mandate to the school administration to act.

You have a better chance of having your resolution passed if you lay your groundwork carefully:

1. Build enough support among teachers, parents, and community members so that these people are willing to call and write to your association, school committee, and/or city council. and to be present and possibly to speak at the meeting at which it will be considered.

2. Be clear about your goals and prepared to respond to questions.

3. Personally contact the leaders of your association and supportive members of the school committee and/or city council to discuss the need for a resolution, the possibility of its passage, and a strategy to get it passed.

4. Provide adequate information to these groups such as statements of support, appropriate portions of this resource guide, the APA study on "The Impact on Children and Adolescents of Nuclear Developments," the article in the May issue of McCall's on "The Fear That Haunts Our Children," the Massachusetts Teachers Association booklet "Changing Economic Priorities," and articles that stress the importance of the issue (see bibliography). Spend time educating these people

so that some of them can be effective spokespersons for your resolution. Call them or meet with them to discuss what they have read and questions they might have.

5. Have people call and write just before the resolution comes up, urging support.

In the Supplementary Materials chapter is a resolution that might be used before any of these groups to support your Day of Dialogue. Similar efforts have been successful in a number of communities in the Boston area. Reprinted following the Day of Dialogue resolution are copies of the Cambridge School Committee resolution mandating the superintendent to initiate a peace curriculum in all grades and the Boston City Council resolution supporting the "Jobs with Peace" Education Week.

After your resolution has passed, be sure to write a letter of thanks to those people who helped you. This recognition and gratitude is a vital part of letting people know that they have made a difference.

Using the Press and the Media

The press can be a strong asset in providing the public with information and in announcing your efforts. It can improve the image of your school and encourage people to do more because of the recognition. It may also be your best means of advertising. Remember however that the image you present will reach thousands of people and, good or bad, it may stick with you. Also remember that with all your best preparations the press will report it the way it wants to.

Here are three good ways to get coverage in the press:

1. Write a letter to the editor about the importance of educating children about issues related to peace and nuclear war and announce your Day of Dialogue. Your letter to the editor should be brief, not over 300 words. Be specific. Type it, double-spaced, and sign it. Always include a phone number in case the paper wants to check the authenticity of your letter. In the Supplementary Materials chapter is a sample of a letter to the editor that was printed in the Boston Globe.

2. Write press releases about specific events such as your Day of Dialogue, a symposium addressing issues of nuclear war, or any endorsements you have received. Remember that having the press there will change your event. Will its presence help or hurt? If you want the press involved, inform them fully and demonstrate the newsworthiness of your event. It helps to send them a "press packet" that includes:

   * a hand-written cover letter specifically stating what you are doing
   * a press release on your event
   * a series of articles from other papers and magazines that substantiates the newsworthiness of the event
   * a page of students' quotes that you and your colleagues have collected from listening to students

In the Supplementary Materials chapter is a sample press release and some articles that you can duplicate and include in your press packet. We also suggest that you include the McCall's article, "The Fear That Haunts Our Children."

Some helpful hints in writing a press release are:

* Early in the release include the time, date, place, participating groups, and the reasons for the event.

* Do not exaggerate information. Make it interesting. Define the basic two or three points you want to make and avoid extraneous information.

* Include some striking quotes to demonstrate support or need.

* Limit it to one page, if possible. Never exceed two pages. You can include additional pages of background material, but these should be clearly separate from the press release.

* Double-space and use large margins. Use one side of the paper.

* Make it clear who is releasing the statement and who can be contacted for more information. Include names, addresses, and phone numbers of members of your group who can be contacted.

3. Encourage your newspaper or TV station to do a detailed thorough article or segment on education and the nuclear war issue, as well as to report what is being done locally. A feature like the Globe or New York Times article presented in the Supplementary Materials chapter can build community support by helping people understand what you are trying to do and why. It may take some coaxing and personal discussion with the reporter or editor, but it will be worth it.

6. The Morning After

Your Day of Dialogue will create a great deal of energy. Make good use of the momentum you have gained. In the following section of this guide, you will find a wide variety of ideas for follow-up use in your indicidual classes. Here are some general suggestions:

* Schedule a meeting within a week of the Day of Dialogue to evaluate the results.

* Set up a committee to continue planning and initiating efforts, with concrete tasks and deadlines.

* Create a plan to get an official mandate for a nuclear education program.

* Plan for a review of existing curricula or teacher in-service workshops.

* Keep track of what is done in individual classes as follow-up and share that with other teachers.

* Use the press to report on follow-up events in your school.

* Schedule a symposium for the whole school in the spring.

* Set up an ESR chapter for teachers and parents and a STOP Nuclear War chapter for students.

* Let ESR know what you have done, and what you hope to do in the future. Use Educators for Social Responsibility as a source of advice and information.

IV. NUCLEAR WEAPONS AND NUCLEAR WAR: A STUDY GUIDE

(This section has been prepared by the Union of Concerned Scientists, 1384 Massachusetts Avenue, Cambridge MA 02238.)

This brief introduction to nuclear issues is specifically designed for adults without extensive technical backgrounds, who want to understand the nature and potential consequences of nuclear war. It consists of eight sections, each of which deals with a subject area that may be considered in sequence or independently of the others.

The first four sections contain the basic material needed to understand the arms race and the positions of the US and the USSR. The next three sections provide more depth, including an explanation of the US strategic warning network, a description of new weapons systems and technological developments, and an assessment of the economic trade-offs inherent in military expenditures. The last section examines various arms control proposals, ranging from treaties now in effect to proposals that have not yet been negotiated.

For the reader who is interested in studying the entire unit, we suggest the following order:

1. Weapons effects and background information on nuclear weapons
2. Chronology of the arms race
3. Comparisons of military strength; who's ahead
4. Strategic policy
5. Close calls and mistakes
6. New weapons systems and developments
7. Economic trade-offs
8. Solutions, treaties, and verification issues
9. Glossary of Terms

Each section consists of an introduction to the issue, a set of questions for investigation or discussion, and suggested readings. Many of these issues are complex and technical; wherever possible, the readings emphasize less technical material. There is no suggested schedule for completion of the unit. The time needed to gain a basic understanding of the issues will vary greatly, largely dependent upon the reader's level of interest and initial knowledge.

1. WEAPONS EFFECTS AND BACKGROUND INFORMATION ON NUCLEAR WEAPONS

In order to understand nuclear war, it is first necessary to comprehend the nature of nuclear weapons. There are several major differences between nuclear and conventional weapons. In conventional explosives, energy is released as a result of chemical reactions. In nuclear weapons, energy is released through the fission or fusion of atomic nuclei, capable of producing thousands of times more force than conventional explosives. Nuclear explosives require considerably less mass than conventional explosives to produce the same amount of energy.

In addition, nuclear explosives produce far greater thermal effects, including sizeable "fire storms." Finally, nuclear explosions produce substantial immediate and long-term radiation dangers.

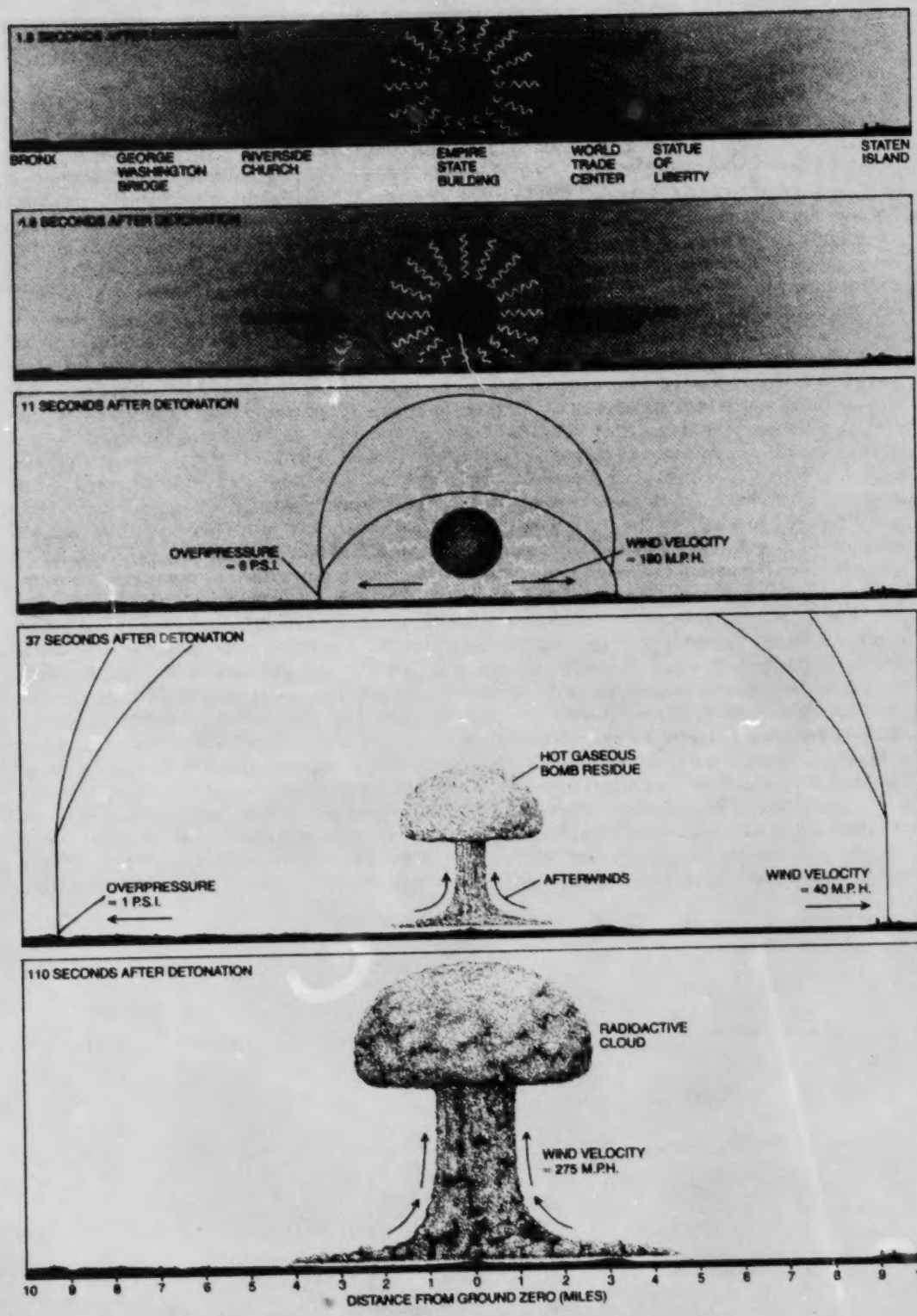
The first nuclear weapons (atomic bombs) were fission weapons, in which the fundamental reaction involved the splitting of an atomic nucleus. This reaction produced a great deal of energy, substantially more than with a traditional chemical reaction. For example, the complete fission of a pound of uranium or plutonium would release explosive energy equivalent to about 8000 tons of conventional explosives (TNT).

Further development of nuclear weapons led to a different principle in order to more efficiently produce even more massive amounts of energy. These weapons (hydrogen bombs) use fusion, or the merging of two nuclei, as the basis for the explosion. At very high temperatures, the two nuclei unite to form the nucleus of a heavier atom, a process that results in the release of substantial amounts of energy. For example, the fusion of all of the nuclei in a pound of hydrogen isotope deuterium would release energy equivalent to about 26,000 tons of TNT.

For comparison, the A-bomb dropped on Hiroshima had an explosive force equivalent to 13 kilotons of TNT. Modern warheads such as those on a Minuteman III missile (which carries 3 warheads per missile) carry warheads with an explosive force of 350 kt, more than 25 times that of the Hiroshima bomb. The total explosive force of all of the conventional weapons used during World War II was approximately 2 megatons. Just two Minuteman III missiles equipped with the new Mark 12a warheads carry more than 2 megatons of explosive force.

The following illustrations of the impact of a nuclear explosion are reprinted from "The Prompt and Delayed Effects of Nuclear War" by Kevin N. Lewis, Scientific American, July, 1979, p. 35-47.

BEST COPY AVAILABLE


BRONX
GEORGE WASHINGTON BRIDGE
RIVERSIDE CHURCH
EMPIRE STATE BUILDING
WORLD TRADE CENTER
STATUE OF LIBERTY
STATEN ISLAND
11 SECONDS AFTER DETONATION
OVERPRESSURE = 6 P.S.I.
WIND VELOCITY = 180 M.P.H.
37 SECONDS AFTER DETONATION
HOT GASEOUS BOMB RESIDUE
AFTERWINDS
OVERPRESSURE = 1 P.S.I.
WIND VELOCITY = 40 M.P.H.
110 SECONDS AFTER DETONATION
RADIOACTIVE CLOUD
WIND VELOCITY = 275 M.P.H.
10 9 8 7 6 5 4 3 2 1 0 1 2 3 4 5 6 7 8 9 10
DISTANCE FROM GROUND ZERO (MILES)

THE PROMPT EFFECTS of the explosion of a one-megaton nuclear warhead detonated at a height of 6,500 feet over the heart of New York are depicted chronologically in the sequence of scenes on the opposite page. Immediately after such a detonation an extremely hot, luminous fireball would form. The fireball would emit intense thermal radiation (*color*), capable of causing skin burns and starting fires at a considerable distance. The explosion would also give rise to a destructive blast wave, which would move away from the fireball at supersonic speed; at 1.8 seconds after the detonation, for example, the front of the blast wave (*black circle*) would be roughly half a mile ahead of the fireball. In addition the nuclear processes responsible for the explosion would be accompanied by the emission of hard radiation, mainly gamma rays and neutrons (*wavy white lines*), which would have enough range in air to reach the ground in the midtown area. When the primary blast wave from the explosion hit the ground, another shock wave would be caused by reflection. At a certain distance from ground zero (depending on the height of the explosion and the energy yield of the weapon) the primary and reflected wave fronts would fuse near the ground to form a single reinforced Mach front; in the case of a one-megaton warhead detonated at 6,500 feet the Mach effect would begin some 4.6 seconds after detonation at a distance of 1.3 miles from ground zero. At that point the overpressure (that is, the air pressure above ambient atmospheric pressure) would be 16 pounds per square inch (p.s.i.). At 11 seconds after detonation the Mach front would have moved outward to 3.2 miles from ground zero, the overpressure at the Mach front would be 6 p.s.i. and the velocity of the wind just behind the front would be approximately 180 miles per hour; appreciable amounts of thermal radiation and nuclear radiation would continue to reach the ground. At 37 seconds after detonation the Mach front would be nearly 9.5 miles from ground zero, the overpressure at the front would be 1 p.s.i. and the wind velocity behind the front would be 40 miles per hour. (Glass would be broken at overpressures down to .5 p.s.i.) Although thermal radiation would no longer be significant, gamma rays would still reach the ground in potentially lethal amounts. The fireball would no longer be luminous, but it would still be very hot, and it would therefore rise rapidly, causing air to be drawn inward and upward, producing strong air currents called afterwinds. These winds would raise dirt and debris from the city to form the stem of what would eventually become the characteristic mushroom cloud. By 110 seconds after detonation the hot residue of the fireball, while continuing to rise, would have begun to expand and cool. As a result the vaporized fission products and other weapon residues would condense to form a cloud of radioactive particles. By this time the cloud would have risen to a height of seven miles. The maximum height attained by the cloud (after 10 minutes) would be about 14 miles. Ultimately the particles in the cloud would be dispersed by the wind, and unless there were precipitation there would probably be no early (or local) fallout of radioactive material.

Questions For Study

What is a nuclear weapon? What is the difference between an A-bomb and an H-bomb? How do nuclear weapons work? How were they developed? What are the cases of actual use of such weapons? How do modern weapons compare with those dropped on Hiroshima and Nagasaki? What are the short and long-term effects of any use of nuclear weapons?

Readings

Kevin Lewis, "The Prompt and Delayed Effects of Nuclear War," Scientific American, July 1979.

Michael Riordan, ed., The Day After Midnight, (Palo Alto, California: Cheshire Books) 1982.

Jonathan Schell, The Fate of the Earth, (New York: Alfred A. Knopf) 1982, Part I.

Samuel Glasstone and Philip J. Dolan, The Effects of Nuclear War, 3rd ed. (Washington, D.C.: GPO) 1977, pp. 1-11.

2. CHRONOLOGY OF THE ARMS RACE

In order to understand the nuclear arms race, we must examine both past and current actions of the major nuclear powers. By analyzing the major weapons choices and the ways in which the nuclear arms race has escalated, we may be able to prevent further escalation. The arms race itself is a symptom of a larger problem of misperception, over-reaction, and mistrust. Only by comprehending this more general problem will we be able to reach constructive solutions.

The arms race has evolved out of a set of key weapons decisions, each of which has prompted a reactive response from the other side. Important developments include the following:

1945	US tested the first atomic bomb, "Trinity", at Alamagordo, New Mexico, July 16
	US dropped an atomic bomb on Hiroshima, August 6
	US dropped an atomic bomb on Nagasaki, August 9
1949	Soviet Union tested its first atomic bomb
1952	US tested its first hydrogen device
1953	Soviet Union tested its first hydrogen device
1957	Soviet Union conducted first full-range ICBM test
1958	US conducted first test of Atlas ICBM
1960	US launched first Polaris missile from submerged submarine
1964	Chinese detonated their first nuclear weapon
1968	US tested MIRV warhead
	Soviets launched their first nuclear powered missile submarine
1970	US began to deploy MIRV'ed ICBMs
1971	MIRV'ed Poseidon SLBMs operational
1973	Soviets conducted their first tests of MIRV'ed warheads
1975	Soviets began to deploy MIRV'ed ICBMs
1978	First Soviet MIRV'ed SLBM operational

1980 First Trident missile submarine enters US fleet
1982 US bombers equipped with long-range air launched cruise missiles (ALCMs)

Questions for Study

What major choices have escalated the arms race? How many countries possess nuclear weapons? Did they all go through the same stages of development? What are the prospects for additional countries joining the "nuclear club"? With respect to major developments (including but not limited to ICBMs, SLBMs, MIRV, and ABM), which country has been the first to develop and/or deploy the system? Was there a bomber gap in 1955? A missile gap in 1960? How accurate were past assessments of Soviet weapons developments? What is the significance of the development of MIRV? What is the likely impact on the arms race of the deployment of advanced systems including the American MX, Trident II, and cruise missiles, or the Soviet SS-18 and SS-19 ICBMs?

3. COMPARISONS OF MILITARY STRENGTH; WHO'S AHEAD?

Analysts, academics, and politicians often compare US and Soviet force levels in order to determine which country has an advantage over the other. These comparisons assess the extent or seriousness of the national security threat posed by the other country. While it is important to understand the nature of US and Soviet military forces, it is essential to recognize the limitations of certain types of analysis. Analysis of US and Soviet forces frequently involves static or fixed comparisons, based on the number of missiles, warheads, or amount of explosive material each side possesses. However, such analysis fails to take into account the uses of these weapons. Comparing one ship to another is appropriate if they will serve the same function. However, if one is a carrier, and the other is a supply ship, the comparison is meaningless. Similarly, effectiveness is often not directly related to weight. Thus a smaller ship with more accurate or efficient weapons will be more useful in many circumstances than a larger ship with less accurate weapons. The difference is accentuated due to the potentially increased vulnerability of the larger ship.

In addition to large numbers of theater nuclear weapons, the US has over 9000 strategic warheads and bombs, of which approximately 25% are carried on ICBMs, 50% on SLBMs, and 25% on bombers. The Soviets have about 7000 strategic warheads, of which approximately 75% are carried on ICBMs, 20% on SLBMs, and 5% on bombers. Soviet missiles have greater throw weight (the capability to carry larger warheads with more explosive power), while US missiles are generally more accurate. The US has more bombers, which in turn have greater speed and range than Soviet bombers. US submarines are less noisy than Soviet submarines, and are consequently more difficult to detect. The US also has the advantage in anti-submarine warfare, but the Soviets have more air defenses with which to intercept a bomber attack.

Questions For Study

What is the current status of the US and Soviet nuclear forces? How can the two forces be compared? Is there a "window of vulnerability?" Which country "leads" the nuclear arms race? Would more nuclear weapons change the relationship between the superpowers? What threats do the Soviets pose for the U.S. and our allies? What are U.S. perceptions of Soviet security goals? Soviet perceptions of U.S. security objectives? What threats does the U.S. pose for Soviet military planners? What are the purposes and capabilities of U.S. and Soviet defensive forces?

Readings

George Kennan, "Reflections: Two Views of the Soviet Problem", The New Yorker, November 2, 1981.

American Friends Service Committee, "Questions and Answers on the Soviet Threat and National Security", 1981.

Colin Gray and Keith Payne, "Victory is Possible", Foreign Policy, #39, Summer 1980.

Sources for information on annual expenditures and reports on force structure include World Military and Social Expenditures (Ruth Sivard), and The Military Balance (International Institute for Strategic Studies).

4. STRATEGIC POLICY

The basis for strategic weapons decisions often lies in "doctrine," a term that refers to the structure of a nation's strategic plans. A key portion of the US nuclear doctrine concerns the ways in which the US attempts to deter nuclear war. US strategies to prevent nuclear war range from the formulation of plans to fight limited nuclear wars to plans for massive retaliation in the event of a Soviet attack of any magnitude.

In the past, one of the cornerstones of US strategic policy has been the conception of deterrence through the maintenance of a "triad" or mix of three different forces. The triad consists of bombers, land-based missiles, and submarine-launched ballistic missiles. For successful deterrence, each of the legs of the triad must be able to survive a Soviet nuclear attack, and in response do "unacceptable" damage to the Soviet Union. Unacceptable damage has been defined as the ability to destroy a substantial portion of Soviet industry and population. It has been calculated that a force equivalent to 400 one-megaton weapons could destroy 35% of the Soviet population and 70% of Soviet industry.

Some analysts have suggested that the triad is a costly and overly conservative strategy. They argue that the US would be just as safe, and our deterrent just as strong, if only two-thirds of the triad were capable of doing unacceptable damage in response to a Soviet attack. Others suggest that the US should adopt a policy of launching its ICBMs on warning of a Soviet attack, to avoid a "use them or lose them" situation. Opponents of this option stress the risks of accidental nuclear war due to computer malfunction or miscalculation.

Questions For Study

What are the meanings and potential consequences of the following deterrence strategies: containment; massive retaliation; flexible response and counterforce targetting; mutually assured destruction; limited nuclear war? Does the triad strengthen the US strategic position? What are the advantages and disadvantages of the Soviet concentration on land-based missiles? What are the primary arguments for and against a triad of strategic forces? To what extent do the stated policies of the U.S. and Soviet Union correspond to their capabilities? What is launch on warning? launch under attack? How could either be used to reduce Minuteman vulnerability? If the U.S. adopted an early launch strategy, what would be the likely Soviet response? If the Soviet Union adopted such a strategy, how would the U.S. respond?

Readings

James Fallows, National Defense, (New York: Random House) 1981, chapter 6.

James R. Schlesinger, "The Evolution of American Policy Towards the Soviet Union", International Security, v.1 #1, Summer 1976.

Bernard Brodie, "The Development of Nuclear Strategy", International Security, v.2 #4, Spring 1978.

5. CLOSE CALLS AND MISTAKES

The US missile attack warning system is designed to provide the earliest possible warning of an attack on the US. The warning system has three parts: sensors, computer centers, and command posts. The sensors are designed to detect missile launch or bomber attack, and includes satellites and extensive radar networks. The computer centers process and analyze the sensor data, passing this information to the command posts. At the command posts, the data from the sensors and computers are analyzed and the necessity for action is assessed.

Unfortunately, this system is prone to error. For example, on several occasions, the computer portion of the system has indicated that the US was under attack, when in fact no such threat existed. Assuming that detection systems are never 100% reliable, one may err in two different directions. The first type of error is to make the system too sensitive. An overly sensitive system will almost never miss an actual attack. However, it may frequently give signals indicating attack where there is little evidence to support such a conclusion. The alternative is to make the system less sensitive, so that false alarms rarely occur. This choice leaves the possibility that there will be an attack that the sensors will be unable to detect. Currently, public attention is focused on the number of false alerts, and the possibility that an overly sensitive alert system may provoke a nuclear response to a non existent attack.

In 1979 and 1980 there were four determinations of a possible threat to North America. In each case, the Commander-in-Chief of the North American Aerospace Defense Command (NORAD) decided that there was a potential threat to North America and called a threat assessment conference, the last step before direct Presidential involvement. One incident was caused by the misinterpretation of the nature of a rocket in a decaying orbit; another resulted from the assumption that simulated data (inadvertently introduced into the NORAD system) were reliable indicators of a massive attack. A third incident was a mistaken response to a Soviet SLBM training launch; the last was caused by a faulty chip in a communications processor computer.

Questions For Study

What is the nature of the US alert system? What sorts of errors does it make most requently? How are they caused? If these errors are eliminated, are different errors likely to result? Could a nuclear war start as a result of computer error? human error? What is the command, control, communications, and intelligence (C^3I) system? How is it supposed to function during nuclear war? What are potential problems with this system? What happens to decision-making processes when the "time of travel" (from one country to another) is reduced from 30 minutes to 6 minutes? What effect does the deployment of Soviet SS-20s and US Pershing IIs have on this decision-time?

Readings

"U.S. Nuclear Weapons Accidents: Danger in Our Midst", Defense Monitor, Center for Defense Information, vol. X #5.

"Recent False Alerts from the Nation's Missile Attack Warning System", Senate Armed Services Committee, (Washington, D.C.: GPO) 1980.

6. NEW WEAPONS SYSTEMS AND DEVELOPMENTS

One of the most serious threats to peace is that technology and weapons development will outdistance or dominate arms control efforts. Arms control negotiations may take years to conduct, allowing research and development of new systems to proceed, often at an increased pace. In addition, if one country leads the development of a weapons system, it may be unwilling to forfeit this advantage to secure an arms control agreement.

The decision not to include multiple independently-targetable re-entry vehicles (MIRVs) in SALT I is an example of the difficulty of arms control. The MIRV decision was attributed to three primary factors. First, some scientists and military officials were anxious to determine the technological feasibility of MIRVing a missile. They did not want to ban its development before they tested the technology. The US was also concerned that the Soviet Union would develop ABM capabilities. This development could have endangered the US ICBM force. US officials thought that MIRVing US ICBMs would allow the US to retain the ability to launch a successful retaliatory strike against the Soviet Union. In addition, the US was ahead of the Soviet Union in the development of MIRV technology, and did not want to relinquish this advantage. At this time, arms control advocates felt they had to choose between fighting the proposed ABM and opposing MIRV. They

chose to fight the ABM, and allowed the development and deployment of MIRVed missiles. In retrospect, many of these same advocates feel they made the wrong choice.

At present, several new systems are under consideration or development. Some have been justified as bargaining chips for arms control negotiations with the Soviet Union; others are seen as responses to Soviet military and technological advances. In order to understand the current arms race, and the potential for future escalation, it is necessary to comprehend both the nature of these developments and their potential impact on future negotiations.

Questions For Study

In general, what are the arguments for and against the development of new weapons systems? What is the historical response to the deployment of new weapons? To what extent are new systems justified as bargaining chips? What are the characteristics of the following systems: the B-1 bomber, the MX missile, Trident II submarine, cruise missile, SS-18 and SS-19 ICBMs, and Typhoon-class submarines? What is the schedule for deployment of each of these systems? How may they threaten future arms control attempts? What are the potential capabilities of these systems?

Readings

James Fallows, National Defense, chapter 3.

Frank Barnaby, "World Arsenals in 1981", The Bulletin of the Atomic Scientists, August/September 1981.

"Preparing for Nuclear War: President Reagan's Program", Defense Monitor, Center for Defense Information, vol. X #8.

7. ECONOMIC TRADE-OFFS

If the government could spend at will, choices between military and social expenditures might not be a major issue. However, economic realities preclude this option. Accordingly, the discussion of trade-offs between military and social expenditures proceeds from the assumption that the governmental budget is restricted. However, it should be noted that funding for strategic nuclear weapons represents only about 10% of the annual defense budget. In fact, building nuclear weapons is often cheaper than deploying the equivalent destructive capability in conventional weapons. Thus, a decision to convert from nuclear to conventional weapons might actually increase defense costs.

Advocates of decreased military expenditures argue that every dollar spent on the military diverts a dollar from social expenditures. In addition, there are various analyses of the number of jobs foregone as a result of military expenditures. Money spent on goods and services creates more jobs than money spent on military hardware and weapons stockpiles. For example, durable goods may remain in use for a substantial period of time, and the wages paid to the producer of such goods may subsequently be used to purchase other goods and services.

In contrast, money spent on military hardware is spent once, and then the weapons are stored; there is no further cycling of goods or services through the domestic economy. There is also concern that the military and the private sector compete for scarce resources. One phenomenon of this type is the domestic "brain drain". This term refers to the loss of trained technical specialists who move from the civilian to the military sector, often leaving a shortage of talent in that portion of the civilian sector.

Questions For Study

What is the relationship between military and social expenditures? To what extent do social or civilian expenditures create more jobs than military expenditures? Why? Can "military dollars" be substituted one-for-one for "civilian dollars"? What kinds of effects do military expenditures have on the economy? What effect would a constitutional amendment requiring a balanced budget have on choices between military and social expenditures?

Readings

John Kenneth Galbraith, "The Economics of the Arms Race -- and After", The Bulletin of the Atomic Scientists, June/July 1981.

Marion Anderson, "The Empty Pork Barrel", Employment Research Associates, 1982.

Michael Parenti, "More bucks from the bang", The Progressive, July 28, 1980.

8. SOLUTIONS, TREATIES, AND VERIFICATION ISSUES

During the last twenty years, there have been many attempts at arms control, including more than a dozen negotiated treaties and agreements. Many proposals have focused on a particular weapon or system, such as the ABM. Other attempts have included quantitative limits on the number of nuclear missiles, launchers, or warheads that a country may deploy. Key agreements and provisions include:

1963 PARTIAL TEST BAN TREATY (PTBT), which prohibited the testing of nuclear weapons in the atmosphere, in outer space, and under water.

1972 SALT I INTERIM AGREEMENT, which provided for a five-year freeze on the total number of ICBM and SLBM launchers for the US and the Soviet Union.

* In September 1977, both countries announced their intent to continue honoring the SALT I agreement, even though it technically expired that fall.

ABM TREATY, a part of SALT I, which limited the deployment of ABM systems by the US and the USSR to two sites. Each country was allowed one site to protect the national capitol, and one to protect an ICBM complex.

* A 1974 protocol to this treaty further limited each party to a single site.

1974 THRESHOLD TEST BAN TREATY (TTBT), which prohibited underground tests of more than 150 kilotons.

* This treaty has not yet been ratified by the United States.

1979 SALT II, which set a ceiling of 2400 on ICBM and SLBM launchers, heavy bombers, and air-to-surface ballistic missiles (ASBMs) capable of a range of more than 600 kilometers. The treaty required a reduction of this ceiling to 2250 by the end of 1981, with decreasing inventories beginning January 1, 1981. It also contained sub-limits on MIRVed missiles, and restrictions on the number of re-entry vehicles allowed on current launchers. A protocol to the treaty contained short-term prohibitions on the deployment of mobile ICBM launchers and the flight-testing of ICBMs from such launchers.

* This treaty has not yet been ratified by the United States.

In addition, several proposals are now under consideration. Key proposals and provisions include:

COMPREHENSIVE TEST BAN TREATY (CTBT)

This treaty would prohibit all nuclear weapons testing, including underground tests of any size. Negotiations on the CTBT were suspended in 1980.

NUCLEAR FREEZE

This proposal exists in various forms. The most common interpretation of the freeze is a "mutual and verifiable freeze on the testing, production, and deployment of nuclear warheads, missiles, and other delivery systems". Other suggest a freeze in deployment, but not testing or production; still others suggest a freeze only after the US has implemented a weapons buildup that will achieve what they consider to be parity with the USSR.

STRATEGIC ARMS REDUCTION TALKS (START)

This proposal, suggested by President Reagan, includes a "Phase I" limitation of 5000 on the total number of warheads deployed by each country. Within this limit, there would be a sub-limit of 2500 on land-based missiles. In Phase II, the parties are to concentrate on an agreement to equalize throw weight, but only on ballistic missiles, where the Soviet Union's forces are concentrated. Bomber throw weight, in which the US leads the Soviet Union, is not to be limited under this agreement.

NO FIRST USE

This proposal includes a declaration by the US that we will not be the first to use nuclear weapons. Such a declaration might be accompanied by a significant change in the US force structure, deemphasizing the use of nuclear weapons. It might also include the removal of 6000-7000 battlefield nuclear weapons from Europe.

In addition, it has been suggested that the US could simply ratify SALT II to begin the next phase of arms control.

VERIFICATION

Many of these proposals raise issues about the verification of arms control agreements. Unless the provisions of treaties and agreements are perceived as verifiable, the chances of domestic acceptance are severely diminished. SALT I and II depend on the national technical means available to each country for verification, and rely on standing consultative commissions to implement the agreements. However, there is concern that national technical means are insufficient, and that the Soviets may be violating these and other arms control agreements. This issue was important in the consideration of the SALT II treaty.

Others argue that this concern is vastly overstated. They claim that it is virtually impossible for either country to make substantive changes in the balance of forces without the other side discovering the attempt. In addition, these analysts emphasize the costs if a country detects treaty violations. For example, it was assumed the US would vastly accelerate its research and development program if it was proven that the Soviets had violated the SALT II treaty.

Both countries are concerned with the question of on-site inspections. The Soviet Union agreed to on-site inspections as part of the Comprehensive Test Ban Treaty negotiations, but the negotiations were never completed. Some analysts claim that the Soviet Union would violate arms control agreements if on-site inspections were not required; others say that the Soviets are concerned that the US would use on-site inspections to conduct espionage activities within the Soviet Union.

Questions For Study

What attempts have been made at negotiated arms control? What treaties are now in effect? Which ones have expired but are still being observed; have been negotiated but not ratified; are in the process of negotiation; have been proposed by others, but not pursued by the administration? How does SALT differ from START? What are the differences in the various freeze proposals, and between the freeze and no-first-use? What effect would these proposals have on the balance of forces and the theoretical vulnerability of land-based ICBM forces? How comprehensive are these proposals? What are the potential obstacles to ratification or acceptance of these proposals? For each of these proposals, what issues would require verification of compliance? What is the likelihood that cheating could be detected?

Readings

Philip J. Farley, Betty G. Lall, Gerard C. Smith, Herbert Scoville, Jr., and Michael Krepon, "Nuclear Arms Control: Options for the 1980s", The Arms Control Association, 1982.

Daniel Ford, Henry Kendall, and Steve Nadis, Beyond the Freeze: The Road to Nuclear Sanity, Union of Concerned Scientists (Boston: Beacon Press) 1982.

Raymond Garthoff, "Mutual Deterrence and Strategic Arms Limitation in Soviet Policy", International Security, v.3 #1, Summer 1978.

"Verification", Wall Street Journal, May 20, 1982.

Robert J. Einhorn, "Treaty Compliance", Foreign Policy, #45, inter 1981-1982.

Noel Gayler, "How to Break the Momentum of the Nuclear Arms Race", New York Times Magazine, April 25, 1982.

9. GLOSSARY OF TERMS

anti-ballistic missile (ABM) system -- A missile and radar system capable of defending against a ballistic-missile attack by destroying incoming offensive missiles.

ballistic missile -- A missile consisting of a booster rocket and a warhead that arcs to its target.

Broken Arrow -- The Pentagon code name for an accident involving nuclear weapons.

C^3 -- Communications, command and control is the system by which nuclear weapons are managed.

circular error probable (CEP) -- A measure of missile accuracy, the CEP is the radius of a circle around a target in which 50 percent of the missiles aimed at the target will land.

civil defense -- The protection of a country's general population, national leadership and industry from nuclear attack through "passive" means.

counterforce -- The ability to strike an enemy's military targets, including bomber and ballistic submarine bases and hardened missile silos.

countervalue -- The ability to strike an enemy's non-military targets, such as population centers, industrial facilities and natural resources.

cruise missile -- A remote-control missile that flies along the contours of the ground to its target. It can be launched on land, at sea, or in the air.

deterrence -- A strategy designed to dissuade an enemy from attack by threatening unacceptable retaliation.

enhanced radiation warhead -- Commonly referred to as "the neutron bomb," this nuclear warhead kills by radiation rather than by blast effects.

essential equivalence -- A balance of forces in which the offensive abilities of both sides are roughly equal in effectiveness, if not in numbers.

fallout -- The radioactive particles spread by nuclear blasts which are carried into the atmosphere and returned to earth, often in rain. Also known as "rainout."

first strike -- The initial use of nuclear weapons against an enemy. The term is generally used to refer to a "pre-emptive" nuclear attack against bomber bases, submarine bases, and missile silos.

fratricide -- The destruction or interference of a nuclear weapon by the nearby explosion (in time and space) of another nuclear weapon.

Ground Zero -- The point of the earth's surface directly on or above which a nuclear weapon detonates.

hard or hardened target -- A strategic target protected against the effects of nuclear weapons, usually accomplished by reinforcement with concrete and earth.

intercontinental ballistic missile (ICBM) -- A missile capable of reaching targets 4000 miles away.

International Atomic Energy Agency (IAEA) -- The world organization that monitors nuclear power plants to guard against proliferation of nuclear material for weapons.

kiloton -- A measure of the power of nuclear weapons equal to 1000 tons of TNT.

launch-on-warning -- A strategic doctrine which mandates the immediate automatic launch of offensive nuclear weapons upon notification that an opponent has mounted a nuclear offensive.

Limited Test Ban Treaty (LTBT) -- Signed in 1963, these accords prohibit nuclear tests in the atmosphere, in the ocean, or in space. Underground tests are permitted.

megaton -- A measure of the power of nuclear weapons equal to one million tons of TNT.

missile experimental (MX) -- A U.S. ICBM designed to replace older, less accurate and less powerful missiles now deployed.

multiple independently targetable reentry vehicle (MIRV) -- A missile carrying several warheads, each of which can be guided to a separate target.

mutual assured destruction (MAD) -- The concept that either the U.S. or the U.S.S.R. could sustain a nuclear attack and still inflict unacceptable damage on the other.

nuclear weapon-free zone -- An area in which the production and deployment of nuclear weapons is prohibited.

overpressure -- A measure of the blast effects of nuclear weapons exceeding the normal atmospheric pressure at sea level of 14.7 pounds per square inch.

proliferation -- The spread of weapons, usually referring to nuclear weapons. Horizontal proliferation refers to the acquisition of nuclear weapons by nations that previously had none. Vertical proliferation refers to increases in a nuclear nation's arsenal.

retaliatory strike -- An attack on an enemy that has struck first with nuclear weapons. Also known as "second strike."

Strategic Arms Limitations Talks (SALT) -- A series of negotiations between the U.S. and the U.S.S.R. toward reducing both offensive and defensive weapons which began in 1969. SALT I was signed and ratified in May 1972. SALT II was signed in June 1979, but never ratified.

Strategic Arms Reduction Talks (START) -- The framework offered by the Reagan Administration to replace SALT.

submarine launched ballistic missile (SLBM) -- Any ballistic missile launched from a submarine.

tactical nuclear weapons -- Designed for use on a battlefield in combat with opposing forces.

theater nuclear weapon -- A nuclear weapon of long range and high yield designed to strike an enemy target within a specific geographical region.

triad -- The strategic forces of the United States composed of three parts: land-based ICBMs, submarine launched ballistic missiles and long-range bombers.

verification -- The process of insuring through means of inspection or intelligence gathering whether an opponent is complying with arms control agreements.

warhead -- The part of a missile, torpedo, rocket or other weapon which contains the nuclear or other explosive system.

V. SUPPLEMENTARY MATERIALS

1. The Effects of Nuclear War on Children: Research Bibliography

Alvik, T. The problem of anxiety in connection . with investigations concerning children's conceptions of war and peace. Scandinavian Journal of Educational Research, 1968. 3-4, 215-233.

Baider, L., and Rosenfeld, E. Effect of parental fears on children in wartime. Social Casework, 1974, 55(8), 497-503.

Beardslee, W. and Mack, J. The impact on children and adolescents of nuclear developments. In Psychosocial Aspects of Nuclear Developments. American Psychiatric Association: Washington, D.C., 1981.

Crcake, J., and Knox, F. The changing nature of children's fears. Child Study Journal, 1973, 3(2), 91-105.

Escalona, S. Children and the threat of nuclear war. In Behavioral Science and Human Survival. California: Science and Behavior Books, 1965.

Kardiner, A. The social distress syndrome of our time. Journal of the American Academy of Psychoanalysis, 1978, 6(2), 215-230.

Lifton, R. Death in Life. New York: Random House, 1968.

Milgram, R., The effect of the Yom Kippur War on anxiety level in Israeli children. Journal of Psychology, 94(1), 107-113.

Schwebel, M. Address to Physicians for Social Responsibility Symposium, New York City. Unpublished, 1982.

Schwebel, M. Nuclear cold war: student opinions and professional responsibility. In Behavioral Science and Human Survival. California: Science and Behavior Books, 1965.

Wen, C. Secular suicidal trend in postwar Japan and Taiwan: an examination of hypotheses. International Journal of Social Psychiatry, 1974, 20(1-2), 8-17.

Winkler, R. and Rusppel, A. Comparative study of early childhood data and symptoms in youths with psychosomatic illness born before and during the war. Praxis der Kinderpsychologie und Kinderpsychiatry, 1967, 16(8), 293-295.

2. A Superintendent Gives His Reasons For Teaching About Nuclear Issues

by Dr. Robert Sperber

Former Superintendent of the Brookline Public Schools

If we want to be seen and appreciated as vital social institutions which need preserving and support, then we as teachers must play a key role in the lives of children and their families. Teaching about the issues of nuclear disarmament, helping our students develop their own framework for decisionmaking in the nuclear age, will not only help our students, but will enhance the schools as an important social institution.

Related to thc issue of preserving the school as a significant institution is the question of helping ourselves as teachers to feel empowered at a time when society is clearly signaling that it doesn't place too high a value on teaching. Nothing can help us more in this regard than to deal effectively with an issue which effects the survival of our civilization. Teaching about the nuclear age will give us a deep sense of helping to preserve the human race.

From a personal point of view, engaging in this valuable effort, in this crusade to preserve our planet, will help us as individuals to deal with our sense of denial or our sense of anger which we feel when we read the newspapers or listen to television or radio and consider the priorities of our government.

The nation's publishers devote little attention to this subject. They are afraid that if they include material that is controversial, or which offends a group of individuals they will not get their books accepted.

My own sense as an educator tells me that if a subject is avoided, if it is too controversial, that is all the more reason why it should be included in the experiences of learners. As educators we have a responsibility to deal with controversy, for it is out of conflict and disequilibrium that real learning takes place. We cannot allow others to take away our right to think critically about vital materials.

Educators have a responsibility to serve as adult role models for their students. As educators we have a responsibility to teach our students content about nuclear issues to help them make intelligent choices, to help them think about a critical issue and to give them a useful outlet for their thoughts and their feelings.

3. Sample Letter to Faculty Members

Elementary Schools:

Dear Faculty,

I am (We are) concerned about the effect that the threat of nuclear war may be having on children's development and the feelings of fear and helplessness it creates. Recent studies show that it is disturbing children more than we realize. I (we) would like to help them overcome these feelings and help them realize that we can create a safe and peaceful future together.

I would like to meet with anyone interested in discussing how we can best explore nuclear issues in the classroom. I have received some materials from Educators for Social Responsibility that I can share with you at this meeting.

The meeting will be in _____ at _____.

Secondary Schools:

Dear Faculty,

I am (We are) concerned about the effect that the threat of nuclear war and the arms race are having on our students' development, and the feelings of fear and helplessness that they create. I am also concerned that there is a major national debate around nuclear weapons of which our students have little understanding because of the complexity of the issue. We, as educators, can help our students overcome at least those aspects of fear that come from ignorance and that leave them feeling so powerless.

The critical nature of this issue and its relevance to students' lives gives us the opportunity to help them become more informed and active citizens. The technical, political, and educational issues raised by a discussion of nuclear weapons and defense policy are complex and need to involve all of us in finding the best means of educating ourselves and our students.

I have received some materials from Educators for Social Responsibility that may be helpful to us. Please come to a meeting on _____ in room _____ at _____ to discuss what we can or should teach about this issue.

4. Sample Publicity Flyer

6 REASONS WHY YOU SHOULD COME TO A MEETING TO DISCUSS WHAT WE CAN DO ABOUT OUR CHILDREN'S FEAR OF NUCLEAR WEAPONS

1. There is a real possibility that nuclear war might be triggered by mischance or miscalculation. We can no longer deny the danger.

2. Educators have a special concern for the preservation of civilization -- that's our business. Experts agree that war between the U.S. and the U.S.S.R. would likely result in nuclear holcaust. Civilization as we know it would be destroyed.

3. The threat of nuclear war worries a growing number of your students. As an educator we need to inform ourselves in order to help them.

4. The feeling of powerlessness is distressful. But we add to our own feeling of powerlessness by failing to act. There ARE things that we can do. We CAN be the masters of our fate. Democracy CAN work!

5. There is a direct connection between escalating military spending and the draining of funds away from education. Tight school budgets, with teacher layoffs and larger classes, are the eventual result of the economic burden of the arms race.

6. Reliance on nuclear weapons for protection means that we must really be ready to use them. To use them could well mean suicide for the human race. So how can we rely on them? Don't we have to find some other method of protection?

"People in the long run are going to do more to promote peace than are governments. Indeed, I think that people want peace so much that one of these days governments are going to have to get out of their way and let them have it."
Dwight D. Eisenhower

"As you can plainly see, he leaves me no option but to get a bigger and better gun."

5. Sample Letter to Superintendents and School Boards

The following is an example of a letter that you might revise to fit your needs. If several teachers and parents sign this type of letter, this would give it added importance.

Dear _____,

We believe that the nuclear arms race and the danger of nuclear war are the most critical issues of our time. Recent research by Drs. John Mack and William Beardslee of the American Psychiatric Association suggests that the fear of nuclear war may be profoundly affecting children's development. As educators and parents, we feel the school is an ideal forum for dealing with the nuclear issue. In the past the discussion of nuclear issues in schools has been limited and informal. We believe that it is important that our schools address this issue and help students become active participants in the democratic process.

We see no easy answers, no "nuclear education curricula," that we can simply pull from a shelf and teach tomorrow. We need to be realistic about the dangers, yet offer hope for the future. We need to nurture dialogue, debate, and critical thinking while encouraging students to stand up for what they think is right. We need to determine what is educationally appropriate for different grade levels.

The technical and political questions raised by a discussion of national security, defense policy, and the arms race are also complex. There are no simple solutions to either the problem of nuclear weapons or the question of what to teach students.

We do believe that it is important for students to hear different sides of the issue.

One way to begin is to create a dialogue among educators, students, and parents on how best to educate ourselves and our children. This might include:

1. finding out what students know and feel about nuclear weapons and the threat of nuclear war, so that we can appropriately meet their needs for support and information.

2. providing a forum for students, faculty, and parents to consider the importance of this as an educational issue.

3. creating strategies for raising nuclear issues and integrating materials into classrooms.

We would like to meet with you to discuss your thoughts and feelings about the educational relevance of this issue and to receive your advice on how we can best proceed.

Sincerely,

6. Sample Letter to Parents

Dear Parent,

On October 25, _____ School is participating in a Day of Dialogue on the nuclear arms race entitled "Creating Our Future." The goal of the day is to begin exploring children's and adolescents' concerns about nuclear war, and to begin thinking about how we as a school community can best address these concerns. We would like your help in bringing educators, students, and parents together to accomplish this by coming to a meeting on October 25 at _____ in _____.

We have undertaken this project because of a growing awareness among educators of children's fears and concerns about nuclear war. The American Psychiatric Association Task Force report, "The Impact on Children and Adolescents of Nuclear Developments," by Drs. John Mack and William Beardslee, suggests that the fear of nuclear war may be profoundly affecting children's development. There are no easy anwers, no "nuclear education curricula" that can simply be pulled from a shelf and taught tomorrow. In order to discuss these issues in the classroom, a teacher must be informed about the possible consequences of the use of nuclear weapons, yet be able to offer hope for the future. Educators must nurture dialogue, debate, and critical thinking, while encouraging individuals to stand up for what they think is right. In addition, there must be careful consideration of what is age-appropriate in curricula dealing with nuclear issues. We believe that it is important to present different sides of the issues and to use materials that stress critical thinking and citizen involvement in decision-making.

On October 25, we plan to talk about what children are thinking, what might be taught, and how to develop effective classroom strategies. The nuclear arms race and the danger of nuclear war are critical issues of our time. _____ School must appropriately meet our students' needs for support and information on nuclear issues and help them become active participants in democratic decision-making. Through education, adults can respond positively to our own and our children's concerns. We hope you will attend our initial meeting. We look forward to working together.

Sincerely,

7. Sample Resolution to City Council, School Board, or Teachers Association

RESOLUTION TO SUPPORT OCTOBER 25 AS A DAY OF DIALOGUE IN THE SCHOOLS ON THE NUCLEAR ARMS RACE

Whereas: Nuclear war constitutes great danger to our city, our country, and the future of humanity;

Whereas: Recent research suggests that the fear of nuclear war may be profoundly affecting children's development;

Whereas: (optional) Increased military spending is resulting in a decrease in federal monies available to states and localities for quality education;

Whereas: It is the responsibility of our schools to help educate children about nuclear issues and issues of conflict and conflict resolution so that they may overcome those fears which come from lack of understanding, and play active roles in creating a future that will be both safe and peaceful; and

Whereas: There are no simple solutions to either the problem of nuclear weapons or the questions of what to teach children,

Resolved: That the _____council/committee/local designate October 25 as a day for beginning a dialogue among educators, parents, students and community members on how best to educate ourselves and students on issues related to nuclear war and peace. The Day of Dialogue shall be entitled "Creating Our Future."

Resolved: That the day will include creating plans for raising nuclear issues in our schools and introducing appropriate materials into classrooms, said plans to be initiated by the Superintendent.

6. Sample Letter to the Editor

Boston Sunday Globe
Founded 1872

WILLIAM O. TAYLOR, *Chairman of the Board and Publisher*
THOMAS WINSHIP, *Editor*
JOHN P. GIUGGIO, *President* MARTIN F. NOLAN, *Editor, Editorial Page*

RICHARD C. OCKERBLOOM, *Executive V.P.*
DAVID STANGER, *Senior V.P., Business Manager*
ARTHUR KINGSBURY, *V.P., Treasurer*
MILLARD G. OWEN, *V.P. Marketing & Sales*
JOHN S. DRISCOLL, *Executive Editor*
TIMOTHY LELAND, *Managing Editor, Daily*
MICHAEL C. JANEWAY, *Managing Editor, Sunday*
ROBERT L. HEALY, *Associate Editor*
ROBERT H. PHELPS, *Associate Editor*

Publishers
CHARLES H. TAYLOR, *1873-1922* WILLIAM O. TAYLOR, *1922-1955* WM. DAVIS TAYLOR, *1955-1977*
President
JOHN L. TAYLOR, *1963-1975*

LETTERS TO THE EDITOR

Talking about peace

The May 23d editorial, "Growing up nuclear" is a helpful contribution toward understanding children's anxieties about nuclear war. However, while "sharing feelings" or going to rallies with their parents may help some children, for many this is not enough.

Students need time in their schools not just to talk about fears, but also to share hopes and ideals for the future, and to reflect on what kind of world they want to help create.

Older children should have access to information and differing opinions on nuclear weapons and disarmament proposals. They should be able to ask questions and study positive examples of community and national leadership for change with teachers who stimulate critical thinking.

Educators for Social Responsibility, a national organization of teachers, administrators, and parents, is sponsoring a teach-in – "Creating our future: A day of discussion on the nuclear arms race" – at schools around the country next fall to give children and adults a chance to learn more and to consider together how to take action for a nuclear weapons-free world.

TONY WAGNER
SHELLEY BERMAN
Educators for Social Responsibility

Brookline

9. Sample Press Release

Press Contact: name, address & phone number

FOR IMMEDIATE RELEASE: date

EDUCATORS, STUDENTS AND PARENTS TO JOIN IN A DAY OF DIALOGUE ON THE ARMS RACE ON OCTOBER 25

On October 25, at _____ School, educators, students, and parents will join in a Day of Dialogue entitled "Creating Our Future" to discuss the nuclear arms issue and its appropriate treatment in the schools.

[Specific description of the event, e.g.: The day will be devoted to classroom discussions of children's and adolescents' questions, thoughts, fears, and concerns about the threat of nuclear war. These discussions will be followed by an evening meeting of interested educators, parents, and students who want to reflect on the ways schools can help students learn about the issues related to nuclear weapons.] (Quote from a local coordinator, administrator, school board member, or student.)

Recent research indicates that children, even young children, are concerned about the threat of nuclear war. This research suggests that the fear of nuclear war may be profoundly affecting children's development. Dr. John Mack, one of the authors of the American Psychiatric Association's Task Force report, "The Impact on Children and Adolescents of Nuclear Developments," states,

> "We may find we are raising generations of young people without a basis for making long-term commitments, who are given over, of necessity, to doctrines of impulsiveness and immediacy in their personal relationships or choice of behaviors and activity."

He concludes that "At the very least, we need to educate our children to the realities of nuclear...weaponry so that they can be helped to overcome at least that aspect of fear which derives from ignorance and which leaves them feeling so powerless."[1]

The day is being sponsored nationally by Educators for Social Responsibility, a non-profit organization of educators and parents with 44 chapters nationwide and main offices in Cambridge, Massachusetts. Shelley Berman, National Coordinator for the Day of Dialogue, observes, "Educationally there are no easy answers, no 'nuclear education curricula' that can simply be pulled from a shelf and taught tomorrow. The technical and political questions raised by the discussion of national security, defense policy, and the arms race are also complex. To help schools begin to address the nuclear issue we must create a

1. John Mack, "Psychosocial Effects of the Nuclear Arms Race", Bulletin of the Atomic Scientists, April, 1981, p. 20.

dialogue among educators, students, and parents on how best to educate ourselves and our students. We believe that educators have a responsibility to deal with the nuclear issue in their classrooms. We hope that the Day of Dialogue will be the beginning of a national effort to help educators and students understand this issue and find ways to act to prevent nuclear war."

Facing the nuclear age: What to teach

By C. Whitney Ward
Special to The Globe

"Children are aware of and deeply concerned about nuclear weapons and nuclear power," say Boston psychiatrists Drs. John Mack and William Beardslee, who presented a questionnaire to 75 Boston area 10th, 11th, and 12th grade students as part of a recently published study.

The following three responses to the question, "What does the word 'nuclear' bring to mind?," are a case in point:

"Fission, fusion, power (constructive and destructive), meltdown, Hiroshima, Nagasaki, leak, explosion, radiation, cancer."

"Bombs, the world as nothing, completely wiped out, danger, sadness, corruption, explosion, children, waste, pollution."

"Stars... planets... space... darkness..."

The study – The Impact on Children and Adolescents of Nuclear Developments – was an attempt by the American Psychiatric Association Task Force, of which Mack and Beardslee are associates, to detail children's attitudes towards nuclear weapons and nuclear war.

According to the authors, very little literature exists on the developmental effects of the threat of war on children psychologically and socially. Most post-World War II studies have focused on adult survivors of Hiroshima and Nagasaki. But, even those deal more with the medical and psychological effects than with the psychosocial effects.

Findings from the Beardslee-Mack questionnaire survey strongly suggest that although children recognize possible benefits from nuclear power and nuclear weapons, they are also deeply disturbed by the specter of nuclear war and the risks associated with nuclear power. A general uneasiness about their future and about whether a nuclear war can be survived often gives children an overwhelming sense of powerlessness.

"At the very least," conclude the authors, "we need to educate our children to the realities of nuclear energy and weaponry. Such knowledge could give young people a beginning sense of control over the experience they have of growing up in the nuclear age."

Associated Press photo of blast from 1946 Navy test in San Diego Bay.

'Knowing is terrifying,
not knowing is terrifying,
but not knowing is hopeless,
and knowing may save us.'
– Brookline ninth grader

57

Are Beardslee and Mack alarmists? "No!" comes the collected shout of thousands of educators, physicians, students and parents across the country who are already committed to seeing nuclear education taught in our schools.

The real push in the movement has come from national groups with growing concern reflected in local school systems like Brookline, Boston, Cambridge and Newton.

Educators for Social Responsibility (ESR), a national organization based in Boston, works in the forefront of nuclear education.

"What is striking," says ESR National Executive Director Tony Wagoner, "is that ESR is a movement that transcends all of the traditional boundaries between public and private schools, between union and non-union. Every type of school is represented. People are really coming together and trying to formulate strategies of how to deal with this very, very, complex issue."

The ESR Curriculum Research Project has already completed an annotated bibliography of educational materials for adults and children about issues of war and peace. ESR is now developing a source book for teachers and parents that will incorporate what has been learned from their classroom research. The organization is attempting to become a clearinghouse for curriculum materials being developed around the country.

"A great deal of literature leads to the conclusion that children are terrified about nuclear issues, but don't have the kinds of defense mechanisms adults have," says Wagner. "We feel that it's important for adults to begin to recognize and respond to children's fears about nuclear war."

In that connection, ESR plans a National Day of Dialogue – a nuclear education teach-in to be held on Oct. 25 at elementary, secondary and higher educational institutions throughout the country. Resource/study guide packets for K-3, 4-6, 7, 8 and high school are being prepared this summer and will be available

NUCLEAR, Page B49

BEST COPY AVAILABLE

Making decisions in the nuclear age

■ NUCLEAR
Continued from Page B47

to educators and parents for teach-in activities.

Other national organizations are showing equal concern about nuclear education:

● The National Education Association is setting up a peace education committee in its Washington office, and the Union of Concerned Scientists is considering a collaborative project with the NEA.

● The National Association of Independent Schools has formed an ad hoc committee to look into nuclear curriculum material and to study what is being done in independent schools around the country with regard to nuclear education.

● The Federation of American Scientists is producing a newsletter – COUNTDOWN – about nuclear education curriculum at the college level.

Locally, Brookline has taken the lead in developing a nuclear education curriculum at the high school level. "Decision Making in the Nuclear Age" was piloted at Brookline High School and three other area schools last year: Pilot School, Cambridge; Tech School, Needham; and the Cambridge School, Weston.

This 12-week curriculum was an outgrowth of the Facing History and Ourselves project on 20th century genocide, which was developed and piloted by Brookline teachers under a title 4C grant. The original F.H.O. project, The Holocaust and Human Behavior Curriculum, has become a national model program and is being used in over 60 schools throughout the United States and Canada.

"The nuclear project began initially because we as adults were concerned," says Elizabeth Lewis, a social studies teacher at Brookline High School and a staff member of Facing History and Ourselves. "But once we started listening to what the kids were saying, we began to understand that it wasn't just our concern, but the kids' concern as well."

"Decision Making in the Nuclear Age," is an inquiry approach developmentally geared for adolescence. It focuses on nuclear technologies, the effects of nuclear explosions, ethics and responsibilities of nuclear power, the Hiroshima and Nagasaki experience, disarmament and decision-making skills. And these are presented in a context of readings, journal keeping, guest speakers, interactional exercises and discussion.

"Although the focus is on nuclear weapons, it's definitely not an anti-nuclear war course," says Lewis. "Yes, we do posit that nuclear weapons and nuclear war are dangerous, and decisions about them should be made with care, but within that bias, we offer the kids many different perspectives and opinions.

"We think it is important that kids learn to be open to other perspectives. The difference between knowledge and certainty is a very important issue brought up again and again in the course. We teach kids that they should never be so certain they are right that they stop listening to others' opinions."

Over 200 copies of "Decision Making in the Nuclear Age" were sent to schools throughout the United States, and project staff members are now in the process of collecting and analyzing data based on its use. This summer the curriculum will go through a complete revision.

"Without getting all of the evaluations back," says Lewis, "we can't say yet what worked and what didn't work. But, as far as I'm concerned, something worked in my class. Because at the end of the year, not only did all of the books come back, but not one was defaced. I think that says it all."

Under mandates from their school committees, Boston and Cambridge are following Brookline's lead in developing nuclear education curricula.

Boston's "Crossroads" curriculum was developed by an educational task force that is an outgrowth of The Jobs With Peace group, formed in 1980 to deal with issues of nuclear disarmament and defense spending. The "Crossroads" curriculum is designed for a week-long course and has a strong anti-defense bias. "It is crucial for people to make a connection between defense spending and the closing down of South Boston High," says Kathy Greeley of the Jobs With Peace Education Task Force. "No, we're not totally objective. We try to get kids thinking about how decisions are made about defense spending and the economy."

The curriculum is specifically geared for the urban, inner city student at junior and senior high school levels. Separate curricula were designed for use in English, science and social studies classes, but the overall focus is on:

● The effects of the nuclear bomb on the human body and the environment.

● What it would be like to be a survivor of a nuclear war.

● The issues behind the arms race.

● The effects of increased military budget and of social cutbacks on the quality of our lives.

● Students' feelings about living in a nuclear world.

● What students can do to respond to these issues.

"The goals of the curriculum are threefold," says Greeley: "To bring home the effects of nuclear warfare; to make a connection between social service cutbacks and military budgets; and to encourage students to become politically involved in whatever they think should happen."

The curriculum will be expanded to a three-week course this fall, and teacher workshops will be offered at the high school to facilitate its use.

Also in the city, the Boston Archdiocese Peace and Justice Commission has developed a peace education study guide that will be integrated into the curriculum of the 55 archdiocesan high schools this fall.

In Cambridge, the school committee passed a resolution mandating nuclear education for grades K-12. Carol Chaet, Social Studies Curriculum Coordinator, is now in the process of fulfilling that mandate for both the elementary and secondary school levels.

A nuclear curriculum will be developed for elementary students by the Cambridge Peace and Education Project, a group that has been working closely with the Cambridge public schools in the past year on a series of discussion groups with teachers.

On the secondary level, Brookline's "Decision Making in the Nuclear Age" was piloted last year at an alternative high school in Cambridge, and will again be offered as an elective at that school this fall.

Although designed as a semester long course, "Decision Making" can be broken into individual units, and Cambridge has elected to offer these 2, 4 or 6 week mini-courses as part of all US history classes at Ridge Tech and Latin High School this fall.

Newton's approach to nuclear education was generated by kids themselves.

"When Dr. Helen Caldicott spoke at Newton North High School last fall, it triggered a very special series of events," recalls John Klavens, a senior this fall at Newton North, who has been instrumental in educating the high school community about the nature of nuclear war.

"Just seeing the faces of those who saw Dr. Caldicott's presentation convinced me that this was something to rally around."

Klavens and a group of fellow students formed STOP – Student Teacher Organization to Prevent Nuclear War – and this spring launched a teach-in April 14.

With the help of social scientist Dr. David Rothberg, Klavens designed a questionnaire that was presented to every student at Newton North. The results were compiled and are being used as a basis for developing a curriculum Klavens hopes will be activated sometime this fall.

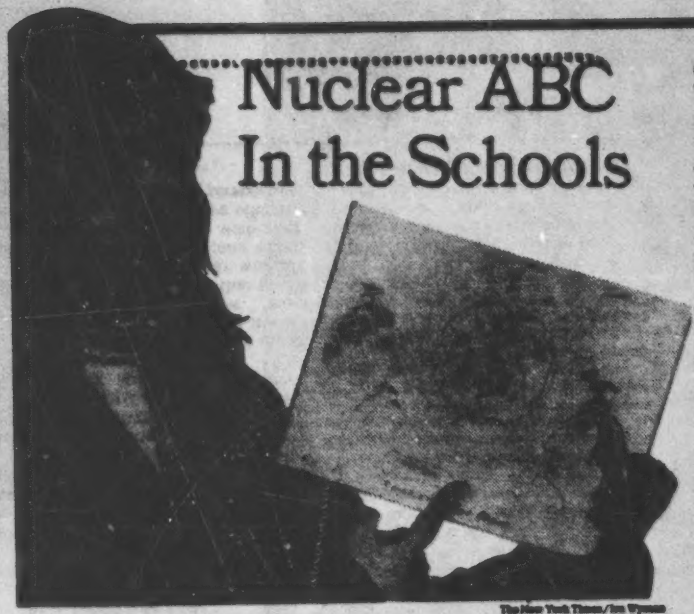
As a 9th grade Brookline student put it:

"Knowing is terrifying, not knowing is terrifying, but not knowing is hopeless, and knowing may save us."

From The New York Times, April 25, 1982

BEST COPY AVAILABLE

Nuclear ABC In the Schools



The New York Times/Jim Wilson

Kaaren Nelson with a drawing she created for a class in "Decision-Making in a Nuclear Age" at the Educational Cooperative School in Needham, Mass.

By REGINA M. GELSINEY

Boston

SIXTEEN high school seniors sit in a circle in Dr. Robert McCarthy's class at Brookline High School, listening intently and responding readily to questions that would pose a challenge to most scholars and politicians.

Why was the development of nuclear weapons such a profound change?

What are the implications for the traditional ways that conflicts have been resolved in society in the nuclear age?

What does this statement of Albert Einstein mean to you: "The unleashed power of the atom has changed everything except our way of thinking"?

The questions are raised in the course, called "Decision Making in a Nuclear Age," a new curriculum aimed at educating students about the facts relating to nuclear war. The program is being given on a pilot basis in seven classes in Brookline, Cambridge and Needham, Mass. In addition, segments of the material are in preparation or in use in 20 schools from Santa Cruz, Calif., to Metuchen, N.J.

According to Roberta Snow, who devised the nuclear program along with Elizabeth Lewis, a teacher and curriculum developer, it is an outgrowth of a course developed five years ago on the Nazi mass murders.

Both courses are part of "Facing History and Ourselves," a curriculum and teacher-training project whose purpose is to bring students and teachers information about events in history not usually found in texts or offered in classrooms. Mrs. Snow is the nuclear program director.

"Throughout the Holocaust unit," she said, referring to the course on the Nazi massacres, "we found kids kept making reference to nuclear war and teachers kept asking if we had any material about nuclear weapons or nuclear power. At first we weren't clear about what they wanted, but we began to think about the idea and started some preliminary research."

Subsequently Mrs. Snow started a letter-writing project, with private financing, in which students from Massachusetts wrote to Soviet teachers urging them to look at Americans as real people. Excerpts from the letters have been translated into Russian and placed in albums for delivery to the Soviet Embassy in Washington. One album has already been accepted for delivery to the Soviet leaders. The organizers of the project are trying to develop a similar program in the Soviet Union, where students will write to our decision makers.

"Once the teachers in that project started talking about the Soviet Union," she said, "we realized we needed to give them and the students more materials to learn about the nuclear world." She noted that although the curriculum was developed several years ago, the current debates and attention to nuclear issues underscored its relevance and importance.

Asked about possible bias in the curriculum, Mrs. Snow replied that to the extent that teaching is a process of selection it is a political activity. "You teach the Civil War as a statement," she said. "Why didn't everybody fuss about how we teach the Civil War? The way I feel about this, is that you have to make sure that you give room to teach people how to think. We're teaching them how to think carefully and from a variety of positions."

The 350-page curriculum that Mrs. Snow and Miss Lewis developed includes courses on technology and on the physics and physical effects of a nuclear explosion. Issues involving ethics and social studies are interwoven throughout the course. These include the role of propaganda, the dehumanization of the enemy, decision-making about technology and ethical decisions confronting scientists.

"In Cambridge," Mrs. Snow said, "the teacher who was piloting the course was afraid to say 'nuclear weapons' in the course title on the advice of other teachers who said, 'Don't confront them with that.' She called it 'controversy' issues' and named 'nuclear' as one of them. Six people signed up for the course. She came here very upset and I told her to go back and call it 'decision-making in a nuclear age — confronting nuclear weapons' — and see if anyone signs up." They put the new course title in, named the chapters and what was going to be covered in the course. Twenty-six students signed up.

Recently, Mrs. Snow has been working with John Mack, a psychiatry professor at Harvard Medical School, on a questionnaire sent to students that tries to establish the impact of nuclear advances on their lives. Results indicate that 80 percent of the students don't believe there is a future.

"I'm very pessimistic about the world," said Elizabeth Perry, a senior in the nuclear-age course. "I feel it's real possible we will have a war and most of the human race will be exterminated."

Dr. McCarthy, who is also the principal of Brookline High School, suggested that teaching the course was not easy. "Teaching about nuclear issues places a lot of responsibility on the teacher," he said. "We are all learning about many of these issues along with the students. Most of us are just beginning to examine them, and they are complex. No one really has the answers."

Students must test different viewpoints. In one phase, they write an article for a newspaper from the perspective of either American citizens urging a United States nuclear buildup or of Soviet citizens supporting a Soviet buildup. At a final symposium the students select a way of solving the nuclear problems that they must defend at a meeting to which parents are invited.

Institutionalizing the issue of nuclear war seems to help some young people deal with its horrors. "I used to be terrified," said 16-year-old Jennifer Dennis, who was in the first pilot class. "Now I break it down logically. I see it as a challenge to overcome this threat to our world."

Because the overall emphasis of the program is on the importance of social action, the final segment of the nuclear course, called "Taking a Stand," includes a discussion of actions that teen-agers have taken that have made a difference in society.

For students, one of the major benefits of the course is that it allows them to face the problems that confront adults. Elizabeth Perry said that even students who were usually indifferent contributed to class discussions in the course.

"Not enough information about nuclear has been fed to us in the past," Miss Perry said. "That's what's good about this. It gives us a chance to get a lot of different ideas about nuclear and it's pertinent. I'm old enough to accept it."

PART TWO

Dealing With Issues of Nuclear War in the Classroom

PART TWO
DEALING WITH ISSUES OF NUCLEAR WAR IN THE CLASSROOM

I. INTRODUCTION

We want to find ways to help children and adolescents understand and live in the modern world and reassure them that we and they can create a safe and peaceful future. To begin, we must listen to their concerns, questions and ideas in order to understand how they are thinking and feeling. Current research tells us that most children do know about and feel varying degrees of anxiety about nuclear issues. The research, however, does not give us many clues about how these concerns change and vary with age and development. As teachers, we have to fill in that gap with our knowledge of human development. This knowledge influences the way we talk to children, how we structure our classrooms, and our expectations. Similarly, it can tell us something about how to deal with sensitive subjects like nuclear war.

Each curriculum section in this manual is introduced by a discussion of developmental issues applicable to children at that particular age or grade level. Many of the issues cross over age groups. Although there are different emphases at different age levels and with different children, a consideration of changes in thinking and feeling that children go through will provide a context in which to approach the teaching of such potentially disturbing material as the arms race.

Younger children characteristically take an immediate, personal, and simplified perspective on world affairs. Starting points for classroom interactions on nuclear issues are their spontaneous play, experience of conflict, fears, and needs. Young children depend on adults for their physical and emotional security and reassurance. As they move through the upper elementary and junior high school years, the emphasis shifts to putting together external facts, and personal experience. This first takes the form of a peer-oriented perspective and, later, one that is more expanded and global. Adolescents can reflect on situations they have not experienced personally, can assume a variety of points of view, and vividly perceive their stake in the future.

All students have a right to a school environment that provides:

- -Cooperative and problem-solving activities
- -A sense of confidence that we can act to create solutions
- -A multicultural perspective

We must remember to listen for clues to what our students are thinking and feeling about nuclear war issues. Many conflicts which are not easily resolvable are present in our lives and our world. Careful consideration of how conflicts arise and how conflicts are resolved will help us offer direction for building both a safe and peaceful future.

II. THE K - 3 CLASSROOM

1. Developmental Factors

As teachers in grades K-3, we work with children who have a wide range of needs and experiences. Differences even among children of similar age are dramatic. When you begin to look at the material in this guide, you will have to decide where to start, taking into account what you know about the individual children you teach: their interests, fears, developmental levels, and experience. Do they live in an urban, suburban, or rural setting? What do they fear in their day-to-day living (street crime, divorce tornadoes)? Do you have five year olds who are still uneasy about daily separation from their families or are most concerned with learning where the bathroom is in their new school? Or, do you teach third grade, where the children are increasingly preoccupied with fears of being left out of the group? Has any of your children experienced war directly (e.g., Ireland, El Salvador, Israel, Southeast Asia)? If so, they may have special information to offer; they may also need special support. Are there any whose parents commonly discuss world issues at home?

It is also useful to take into account the shared history of your particular classroom group. What are the themes of their play in the classroom? At recess? Has fighting or hitting become a common problem? Have the children had previous experience with open-ended group discussions about difficult questions? Have any nuclear or peace concerns ever surfaced?

Finally, consider what kind of approach to emotional issues around war and peace would make you most comfortable given your own feelings, thoughts, and experiences. Start with what feels right. You will probably want to start small and take on more later as you and your class are ready. You can decide for yourself whether you are willing to state a particular opinion as your own. You may prefer to describe a range of possible opinions using the phrase "some people think...". Please let us know what worked well with you, since we are all trying to develop an understanding of children's concerns and appropriate adult reactions to them (a feedback form is enclosed for that purpose). The nuclear arms race is a sensitive issue, and we are at a relatively beginning stage of trying to deal with it in schools. It is all right to say, "I don't know."

An outline of general developmental issues for children of this age range follows. Later, we focus specifically on spontaneous conversations during children's play and on group discussions. Following that is a section on activities that the teacher can introduce to the class, using books, art materials, creative writing, story-telling, songs, or planned discussion.

Like us, children suffer from feelings of isolation and need ways to feel more connected, empowered, in control, and hopeful. It is wonderful not to feel alone. Just hearing that other children have similar hopes and fears can help. We can help children build a sense of the strength and hope found in unity with others.

Try to exchange the results of your activities with another class in the school, in the city or town, or even some place far away. Two teachers we know from different schools each had their class write a group poem on the theme "Peace is..." after listening to a published poem with that title. Then their classes exchanged copies of their work.

It is through play that children experience and come to understand the world. Wars, battles, and other forms of conflict are a common theme -- in children's dramatic play in the house corner, with materials like blocks and sand, in action drawings, and on the playground. The teacher has an important role in talking with children about their play in order to support them as they come to grips with the variety of issues involved and to ensure that nobody is getting hurt, overwhelmed, or overpowered physically or emotionally.

For children, the lines between fantasy and reality are not clear. We must help children articulate and reiterate what they usually know; that their play is different from real war because "nobody is really getting hurt or killed." Children also need help sorting out reality from fantasy as these are portrayed in the media.

Children often view the world in terms of dichotomies and simplifications, (e.g., Good Guys versus Bad Guys; Us versus Them; Winners versus Losers; Bigger is Better; War is Glamorous). While we may accept some of these perceptions in young children as developmentally appropriate, we must help children to construct more sophisticated categories and complex understandings by encouraging them to respond to other people's ideas and feelings and to express their own. In the case of ideas and feelings about peace and war, development means moving toward the notion that "bad guys" are also human, that real people suffer when there is shooting and bombs, that everyone loses something when there's fighting and war, and that being bigger and more powerful does not necessarily mean that you are better.

Children lack a long-term future orientation. They are concerned about what may happen tomorrow. Although some children as young as four, when asked about their future, attach an "if" to their survival and refer to "the bomb"*, this stands as a counterpoint to their idea that the present is everything. Also, in children's view, the passage of time is neither necessarily continuous nor limited to one direction. For them. "time flies when you're having fun" and "going back in time"

*Escalona, S. K., "Children and the Threat of Nuclear War", in M. Schwebel, Behavioral Science and Human Survival, Science and Behavior Books, Palo Alto, 1965.

are experienced as very real events. As a result, phrases implying finality like "the end of the world" or "everything will be dead" probably don't mean what they mean to adults.

Children's direct experience of social organization, styles of interaction, and expectations of adults is an important influence on their cognitive and social development. Although suggestions and activities in this manual are suitable for a special one-day focus, in the younger grades particularly, they are best viewed in the context of ongoing experience in a classroom atmosphere which supports peaceful values. As teachers we make many decisions in setting up our classrooms which may influence the attitudes and values of the children we teach.

How are conflicts between children resolved? Between teachers and children?

How does the relationship with the teacher help children develop inner controls independent of the constant presence of authority?

What discussion opportunities are there for solving problems as a group or dealing with sensitive or moral issues?

What is the balance between critical thinking and a right/wrong focus?

What is the balance between cooperative and competitive values in school games or achievements?

What opportunities are there for children to share responsibilities for projects none could do alone (like painting a mural, putting on a class play, or cleaning up the classroom)?

How is a multicultural perspective being developed, either through appreciation of diversity within the classroom or exploration beyond?

In what ways are we encouraging children to value the natural world of plants, animals, ecology, and health?

Are children developing a sense of success, competence, and trust in themselves as learners, thinkers, and decision-makers?

Many of the activities in the K-3 chapter focus on conflict-resolution skills and cooperative problem-solving. Teachers have found that at this age it is not appropriate to directly teach information about nuclear war. If children can effectively handle and resolve conflicts, perhaps they will be prepared to create a future that uses means other than force to solve critical world problems.

2. Starting Points

Talking with Children About War and Peace

By paying close attention to the themes of war and peace in children's spontaneous play and work, you can be in a better position to understand how children are thinking, what their anxieties are. You will then be in a better position to reassure and support them.

It is often awkward for teachers to give children a chance to express their thoughts and feelings about war. We can be uncomfortable watching children play war games, fantasize violence, explore their ability to win and lose fights. It is hard not to moralize: "It is bad to shoot people." "Wars are bad." Children may respond to such comments by saying the "right" thing or temporarily stopping their play, but they do not change their feelings. They should be allowed to play out their ideas in an accepting atmosphere in order to understand and believe that peaceful alternatives are possible and preferable. This process takes a long time, but starting it is important.

Since children's play and drawings so often focus on war activities, there are many occasions during which you can initiate discussions on how conflicts arise. You can bring to their attention specific questions:

What are wars about?
Why did the fighting start?
Who is in them?
What happens in a real war? Who gets killed? Who gets hurt?
Who is left? How does it feel? What do you win and what do you lose?

It is easiest to raise these questions when small groups of children are engaged in an activity -- block-building, sand, painting, drawing, dramatic play. They may be building war camps, drawing battle pictures, dive bombing sand castles, or pretending to be soldiers. They probably will not want to suffer a lengthy interruption, but you can raise a few questions then, and take note of other questions to come back to later. In the case of the war camps, for example, here are some possible question to start children thinking a little more about what they are doing:

What are the forts for?
Whose fort is this?
Whose fort is that?
Why are they fighting?

Usually, one of the forts belongs to the "Bad Guys." One teacher said, "I might ask, 'Are they real bad guys or made up?' I want to find out if they are based on real people or movie stories because TV can influence children's perception. Usually bad guys are not based on real people and that makes it easier for the good guys to kill them."

Other questions can deal with ways of hurting people. Are they going to use weapons? What kinds of weapons? Children have mentioned guns, cannons, bombs, swords, planes, traps, and knives. Why do people use guns, cannons, bombs? Children might respond, to win the war, to kill the other guys, to blow everything up. The implications of using weapons can be explored by asking about the end of the war.

How does the war end?
What stops it?
Who wins it?
How do you decide you've won?
Was it necessary?

Usually the answer is that the bad guys are all dead. If you ask whether any of the good guys get killed, they pause, especially if, as is sometimes the case, the script calls for only one person to be left as the winner. Children seem to start with the idea that winning is a wholly satisfactory goal, but there is often a strong underlying feeling about not wanting people to be hurt, and discomfort with the idea that winning requires hurting people.

Sometimes you may decide to extend a brief discussion at another time: "Remember yesterday you said there are real bad guys? Who are they? What makes them bad guys?" Or, "This morning when you were playing, I wondered how it would feel, with everybody dead and you the winner?"

The questions that teachers direct to children often cause some disequilibrium as they try to resolve the unavoidable conflict they feel between their desire to play at war and adults' concerns about real war. Children should not be made to feel guilty about their enthusiasm for war play. One way to avoid this is to set firm standards about the responsibility of the players not to hurt anyone's feelings or bodies. Another is to acknowledge the children's awareness of the distinction between the fantasy of their play and the reality of adult war. With this help from teachers children are quick to respond "It's just a pretend fight," or "This is not a winning war."

Another good occasion to ask questions is when children are listening to a story. One teacher put it this way, after reading The Stranger by Kjell Ringi aloud which led to a discussion about enemies and war:

"It was just wonderful. We were studying giants in the class so it didn't feel as if I was pushing things on the kids for my own purposes. It came up in a very nice, natural way. It made me think about the fact that for my age class (combined grade 2-3) bringing up these issues can be done very well through books."

Here is a transcript of the discussion that occurred following the reading of "The Stranger." Note that the book does not talk about war. It tells about how the people, in their fear of the giant-stranger, bring out their cannon against him; but when they finally get to talk to him, they like him a lot.

Teacher: Why didn't the bird (sent by the townspeople to the giant) return?

Students: The giant ate it.
It flew away.
It was scared of the giant.
The giant crushed it.

(after reading the book)

T: Why do you think the people wanted to fight the giant?

S: They were scared of him.
He was so big.
They thought he was an enemy.

T: Who do you think our enemies are?

S: Russians.
Germans.

T: (to child who is German) Are you our enemy?

S: "No."

S: Japanese.

T: I have a friend who's Japanese and he's not my enemy.

S: Greeks.

T: Why do you say Greeks?

S: Well they fought us in a war. It's kind of embarassing to talk about now.

T: Are you talking about the Macabees and the Chanukah story?

S: Yes.

T: From over 1,000 years ago?

S: I guess it was a long time ago.
Cubans.
Africans.

T: (to child from South Africa) Are you our enemy?

S: No way!
I'm from Africa too and I'm not either.

T: It sounds like sometimes we think people are our enemy because of a past war or because the people appear different in looks or customs.

Why do you think the townspeople think the giant is an enemy?

S: Maybe a long time ago some giants hurt the people.
Maybe because he looked different.

T: Was he really an enemy?

S: No.

T: What do you think is the message the author wants to convey?

S: War is really dumb.
There is no reason ever to have a war.

T: Now why do you say that?

S: (long pause) Well the people who kill each other might really be friends.

The discussion that followed the reading of The Stranger illustrates that children's thoughts and feelings evolve when they are helped to explore them. Teachers need to listen to all ideas, allow many forms of exploration, question for further clarification, and reassure the children to help them feel secure. Graphic details may be appropriate for older children, but are inappropriate at this age level. We agree with the Israeli child who wrote:

> If peace and war will ever meet
> the peace will always win
> for peace is like a blessing
> and war is like a sin.*
> - Moshe Cohen

Through the exploration of all of our thoughts and feelings about peace and war those that are supportive of peace will emerge.

---

* Zim, Jacob, Ed., My Shalom My Peace, Paintings and Poems by Jewish and Arab Children, McGraw-Hill Book Co., New York, 1974, p. 85.

Talking With Children On Fears About Nuclear Weapons

The last section dealt with teachers' conversations with children on the general theme of war and peace. We also need to be alert to children's specific concerns about nuclear weapons. Sometimes they refer to nuclear weapons by name, either with a question or a statement about what they think they know. Often, nuclear weapons are alluded to indirectly in their play, stories, or drawings. For example: "I've got a bomb that will blow up the world." "This war is never, never gonna end."

If and when we decide to pursue children's concerns about nuclear weapons, our first task is to find out what they understand or what they are really asking. Careful open-minded questioning before responding is important: "Do you think there really is such a thing? Do you think a war could end the world? Does that scare you?"

The following exchange took place with one six-year-old boy and his teacher while he was drawing a picture about the Revolutionary War.

Teacher: What is that?

Student: A bomber.

T: Does it have weapons?

S: Yes, bombs.

T: Any special kind?

S: Not those nuclear kinds.

T: Oh no? Why not?

S: Because they did that once before and they know what will happen.

T: Did what once before?

S: Dropped a nuclear bomb and the radiation spread over all the earth and even killed the rabbits in the forest.

T: But you don't think they'll ever do that again?

S: NO!

In this case, while the child showed that he had some impressions about nuclear bombs, the teacher's questioning indicated that she probably didn't need to provide further reassurance.

Another example of a spontaneous discussion of nuclear war took place in a second-third grade class while they were involved in a unit on Places. Three children are putting together a world puzzle, on the rug, and talking about place-related things. The teacher happened to hear.

Josh: There's going to be a World War III. Mr. Mulligan says there's gonna be. And everyone and everything will be destroyed. Then the flowers will grow to be the size of trees after one night and the people will be humanoids.

Sam: No, that's not going to happen now because I met the peace marchers last night.

Teacher: (to Josh) Who is Mr. Mulligan?

Josh: He's a psychic. And the plants are going to grow real tall in one night.

Teacher: (to Sam) You feel that the peace marchers will keep this war from happening?

Sam: Yes, grownups are really trying hard for there to be peace.

Teacher: (to Josh) You spoke matter-of-factly about World War III. Does it scare you?

Josh: (pause) No. (shrug, returns to puzzle)

Teacher: (to Julie) Do you ever think about all this?

Julie: No.

Teacher: Does it worry you?

Julie: No.

Sophie: (walking by, panicky) There's going to be World War III? Are we all going to die?

Teacher: (calmly) No, Sophie. Josh was saying what a friend said.

Sophie: That's good cause I'm scared of dying. (walks on)

Teacher: turns attention back to three children doing puzzle (who are now talking about whether they should be able to hold more than one puzzle piece in their hands as they do the puzzle.)

This one anecdote reveals some of the different kinds of reactions, thoughts, and feelings children have. Josh may be relishing the idea of such a grand-scale disaster. The distortions in his details may indeed be what the psychic said, but may also be, at least partly, his own. He says, after a pause, that he is not scared of this possibility. Perhaps he realizes the extent to which what he described is really fantasy.

Sophie is scared. She seems to have picked up only on the frightening elements of World War III, and everybody dying, but none of the fantasy. Julie claims not to think or worry about a global disaster. Sam's reaction supports one of our strongly held views: *That adults' peace-making efforts are a source of reassurance for children.*

The teacher played an important role in this interchange although almost all of the substance was provided by Josh and Sam. First, she expressed interest in the conversation. She elicited feelings, checked in with Julie who was remaining silent and reassured Sophie about her particular fear. It seems that this occasion to talk about their feelings is calming for each of the children: for Josh, who develops his frightful fantasy as he wishes, with no ill effect; for Sophie, who gets to say she's afraid and is assured that nobody she trusts is saying there is going to be a war; for Sam, who has a chance to declare what it is that reassures him; and for Julie, who doesn't really want to think about it. All of them go calmly back to the business at hand.

In this example, Josh's initial scary statement was tempered by Sam's immediate response which set a tone of reassurance even without the teacher's comment. The talk could have proceeded quite differently if another child had been there instead of Sam. Occasionally, careful listening and questioning reveals the children's need for a direct or factual response. We want to offer only the information or type of reassurance that is really being requested without giving the impression that the subject is unspeakable or the questions wrong. Following are two different possible responses to a child who asks "What is radiation?" They are based on what a teacher might know about a child's understanding of the word "radiation."

S: What is radiation?

T: What do you think it is?

S: It makes the plants grow huge overnight.

T: That's not true. Maybe you heard that when there's lots of radiation plants don't grow properly. That is true.

S: What is radiation?

T: What do you think it is?

S: I saw pictures in a magazine. Yuch!

T: Pictures of what?

S: Real ugly bodies.

T: That scared you?

S: Yes.

T: It is upsetting to see that stuff. When people are exposed to an enormous amount of radiation, like from a nuclear bomb, they get hurt. Sometimes they don't grow properly. Sometimes they die. People hope the bomb will never be dropped again.

There are no easy or automatic answers. The above examples are only ideas for responding to two of many possible fears about radiation. Often children are not asking for a clarification of the nuclear vocabulary in their questions but rather an opportunity to express their feelings.

3. Activities

The activities that follow suggest ways to find out what children know and think and feel about peace, war, and possibly, nuclear issues. They offer childre a means to express themselves on this subject. Some allow children to see how others act in situations of conflict and, through the discussions that follow the activities, how they could act in similar situations. They offer experiences in cooperative problem solving, an important means of resolving conflicts.

Teachers can prepare activities that come from books, poems, songs, pictures, films, newspapers, and discussions. They can lead almost anywhere that the children are ready to go. We present these ideas with the hope that you will adapt them for your individual classroom. Often one starter can be followed by another activity that uses a different medium. Even if you cannot obtain some of the books or poems mentioned, you may still find some helpful ideas.

a. Books

1. Where the Sidewalk Ends by Shel Silverstein
N.Y.: Harper and Row, Publishers, Inc., 1974

In his book, Shel Silverstein offers delightful poems and drawings, many of which deal with concepts related to this Day of Dialogue. Children usually respond to these poems and we have selected some that can be used as starting activities. As with other starters, these can lead to further activities.

"Helping" (page 101): This poem begins with examples of children helping one another in the creation of an object and ends with an example of an object being broken. It deals with cooperative and destructive kinds of help.

You can talk to your class about:

-what kind of helping they do.
-what is helpful?
-what is not helpful?
-what ways have you worked together in the classroom?
-how did you feel when you worked together?
-why did you work together?

This discussion might lead to your reading Drummer Hoff, adapted by Barbara Emberley, where army officials all help to create a cannon.

"Hug O' War" (page 19): A delightful poem that alters the aggressive game of Tug of War into a cooperative game of "Hug O' War" where the rules are simple and everyone has an enjoyable time. It encourages students to think about cooperative and competetive play.

Suitable for:

-reading aloud and discussion
  -what does winning and losing feel like and mean to you?
  -how is it possible for everyone to win?
  -what would this feel like?

-creating new games
  -Create new titles and poems for other games they know. (e.g., Tag you're it! or Bang, bang you're dead!)
  -Change "Hug O' War" to "Tickle O' War."

-creating rules for all the new games
  -talk about new rules in groups and then offer them to the whole class.
  -go outside or to the gym and try your new games out and have lots of fun.

The New Games and More New Games books offer many ideas an an approach to cooperative play which you might want to refer to.

"Where the Sidewalk Ends" (page 64): Each of us knows the need to go to a special, peaceful place at certain times and this more serious and quietly descriptive poem for older children tells of this place that can be found "where the sidewalk ends". This poem is a good lead in to thinking about what a peaceful world might be like.

This poem might lead to discussion about:

-What kind of place is found "where the sidewalk ends"?
-Do you have this kind of place? Describe it.
-When do you go to this special place?
-How does it make you feel when you're there?
-Is it possible to have this place exist all the time or is it only for special times?
-Is there any part of this place that you would like to have in your everyday life?

Children could draw pictures or write about their special place or the place described in this poem.

"The Generals" (page 150): We're all familiar with the technique of making excuses and this poem presents a consequence of this which we hope will never happen. In this poem, the enemies General Clay and General Gore would rather go to the beach and play than fight a war. However, they create obstacles such as the possibility of a closed beach, the chance of drowning, and a ripped bathing suit, that prevent them from enjoying their day and instead end it with their destruction. This poem allows children to discuss how people seek out familiar solutions rather than risk creating new ones.

This poem is suitable for:

-reading aloud to the whole class.

-pantomiming.
Divide the class into two groups each taking the part of one of the generals. Teacher reads the poem aloud. The next time each group can pantomime and read the poem themselves.

-discussions about the excuses the Generals gave.
You can offer your class a chance to solve the General's problems so that they don't have to go on with this silly war. Stanzas 4-6 can be changed by giving alternate responses to the General's statements and questions, and thus changing the poem's ending. i.e., If General Gore is scared of waves, how could General Clay help him? General Clay could offer to teach him how to swim. The children should be given the opportunity to present solutions to all of the General's excuses.

-discussions about the excuses they use for things they do.

-writing rhyming verses of their own about their solutions to the general's excuses and about the fun time the Generals had at the beach.

"I Won't Hatch" (page 127): A wonderful poem about a chick who refuses to hatch because he hears all about war and pollution and would rather remain inside where it is totally secure. It deals well with children's fears about the environment and their need to feel protected and cared for.

This poem easily lends itself to creative dramatics. Children will love working in groups or 3 or 4, or alone, taking turns, acting out the parts of the chick, the shell, a hen, and a rooster. The chick can read the poem. The hen and rooster and shell can try to convince the chick to hatch.

Before acting, a discussion can take place:

-What is an egg shell like?

-What lives inside an egg?

-How does it feel to be inside?

-What shape would you take inside an egg?

-Does being inside the egg feel safe?

-How would you go about breaking out of the shell?

-How would you feel when you first came out?

-How can the chick feel safe outside the egg?

You could also discuss why the chick should come out. What good things will the chick find in the world and how can the chick make the world better? This might be a good time to do an art collage: children look in magazines and cut out things in our world. After acting this out, the class can draw pictures of what the chick finds when it does come out of its shell.

2. Drummer Hoff Adapted by Barbara Emberley
N.J.: Prentice-Hall, Inc., 1967

A simple verse with a wonderful rhythm and attractive rhyme, about the building of a cannon and its climactic firing. Colorfully garbed officers each bring parts to complete the machine. The repeating words make it great for reading aloud and then for children to act out.

This book deals with-

-the creation of a weapon through the collaboration of many people
-who takes the responsibility of a weapons action and its effect
-if they can create such an intricate machine, could they possibly pool their resources to create a peaceful solution to the problem.

While reading this book these questions could be asked-

-How do you think Drummer Hoff felt about firing it off?
-What happened to the army officials after the firing?
-Who benefited from the cannon?
-What happened on the very last page?
-How many times was the cannon used?
-Why hasn't it been used again?
-Who uses the cannon now?

After reading Drummer Hoff you might want to read aloud the poem "Helping" by Shel Silverstein where disruptive and cooperative kinds of helping are dealt with.

3. The Pig War by Betty Baker
N.Y.: Harper & Row, 1969

The year is 1859. Two groups, American and British, stake claim on an island (in what is now the state of Washington). Each attempts to outdo the other. Accidental damage to property occurs and British soldiers and American farmers start to throw potatoes at each other. The battle escalates as each side sends for help. When they realize that their own reinforcements are eating up their scarce food, the leaders of both groups talk and decide that they can share their island.

This I CAN READ history book can be read silently or read aloud to the whole class and then be followed by discussion. The story shows the process of working towards a solution involving compromise. Deciding to share avoids conflict.

4. More New Games! and Playful Ideas from the New Games Foundation by Andrew Fluegelman; Tiburon, Calif.: The Headlands Press, Inc., 1981.

A wonderful resource book about a creative approach to play and recreation. It offers a delightful philosophy and shares practical methods for including everyone in the games, for inventing variations of old games, and for helping everyone feel that by enjoying themselves they really are winners. This book fosters a spirit of cooperative play.

Note: Both The Hating Book and The Quarreling Book by Charlotte Zolotow deal with similar topics. One or both of these books could be used.

5. The Hating Book by Charlotte Zolotow
N.Y.: Harper and Row, Publishers, Inc., 1969

The childhood problem of hating one's friend and being devastated by this feeling is gently presented and then resolved with all traces of hatred quickly disappearing, as can only happen in childhood feuds. A wonderful book for reading aloud to be followed by discussion allowing for the children to tell of similar instances they've been involved in and how they felt.

While reading this book these questions could be asked-

-If you were the girl's mother or friend what advice would you give her?
-What was the cause of the two friends hating each other?
-What would have happened if the girl didn't go to her friend's house to ask her why she's been so mean?

Class discussion could be about-

-Have you ever "hate hate hated" anyone?
-Why?
-How did you feel?
-How did you make up?
-Could you have done anything to prevent the fight from happening?
-Do grownups ever fight?
-Why do they fight?
-What happens when this occurs?

6. The Quarreling Book by Charlotte Zolotow
N.Y.: Harper & Row, 1963

Adults, then children, take out frustrations on each other, each picking on the next smaller person. Each is also influenced by the weather. When a playful dog makes the youngest smile again, forgiveness and friendliness are passed back up the line. Each person feels much better as the others become pleasant again, and as they themselves are kinder.

This simple tale with familiar and easily understood events deals with the general subject of generosity to others around you.

Suitable for-

-reading aloud and discussion of events.
-allowing kids to tell own experiences of being picked on, how it feels, how it feels when you can be kinder to others, how it feels when you can forgive.
-creative dramatics -- each role being taken by children in turn.

7. My Shalom, My Peace Edited by Jacob Zim
N.Y.: McGraw-Hill -- Sabra Books, 1975

A moving collection of paintings and poems on the theme of peace, by Arab and Jewish children who have experienced war. The words produce sentiments that will deeply touch each child and when shared by reading aloud will probably lead to fulfilling discussions and poems of their own.

You can use the format, first lines, or titles of many of the poems in this book as starters for children to write their own peace poems or stories. For example:

-the format of "Sing the Songs of Peace" (page 84) Peace is...
-the line of "A bit of Peace is needed"...(page 85)
-the title of "The Peace Balloon" (page 75)
-the line "I don't like wars" (page 49) can be followed by I like...

8. Potatoes, Potatoes by Anita Lobel
USA Bowmar/Noble Publishers, Inc., 1967

A right to the point story about two countries at war, a mother's attempt to shield her two songs from it, their eventual involvement, its glorified and destructive powers, and the final resolution. The excellent drawings and clear narrative totally involve the reader in this tale which could be read aloud and then dramatized for the entire student body and parents.

This book deals with:

-the glory of war.
What becomes of gleaming swords and shiny medals? What is meant by the saying "The grass is always greener on the other side"? Is it a true statement? "Ladies threw flowers" as the soldiers passed by but how did they feel when their brothers and husbands came home from war?

-shielding one's family from war.
Why did the mother build the wall around her home?
Do you think it was a good idea?
If the mother hadn't built the wall, what might have happened?
-economics of war.
If people spend all their time fighting, building and polishing weapons, who will have time to grow the food to sustain the people?

9 The Stranger: A Modern Fable by Kjell Ringi
N.Y.: Random House, Inc., 1968

This simple fable tells the story about how people in their fear of a giant-stranger, bring out their cannon against him. When they finally get to talk to him, they like him a lot and he is invited to stay in their country.

It is suitable for reading aloud, puppetry, and discussion. Please refer to the discussion about The Stranger in the Starting Points chapter for types of questions used in a classroom after reading this story.

b. Songs

The following songs all celebrate peace and unity.

1. "Strangest Dream," by Ed McCurdy (In American Favorite Ballads, Joan Baez Songbook, Weavers' Songbook, on Simon and Garfunkel's Wednesday Morning 3 AM TRO (c) 1950 (renewed 1978) Almanac Music Inc. New York, N.Y.)

2. "Let's Get Together," by Chet Power (In Great Songs of the Sixties (c) 1963 Irving or on This Is The Youngbloods, 1972, RCA Records, New York, N.Y.)

3. "Study War No More," (In Songs of Work and Protest, American Favorite Ballads, Song of the Spirit, Joyful Singing.)

4. "Vine and Fig Tree," (Traditional)

5. "Let There Be Peace On Earth," by Sy Miller and Jill Jackson (In Songs of the Spirit, Best of Popular Songs (c) 1955 authors (c) 1956 and 1967 Jan-Lee Music, Int'l copyright secured.)

Consider singing and studying these songs, and then organizing a Concert of Peace Songs for your school and parents. A sing-along sheet with the words of the songs illustrated by the students could be passed out to the audience so they can take part.

c. *Creative Writing*

1. The Big If is a United Nations film (1981) that offers a good poem or story starter for children who have the ability to transform objects. The phrase "What If?" allows us to fantasize about weapons becoming useful and needed objects in our society.

Beginning with the film's ideas:

"What if" tanks become tractors,
"What if" grenades become chickens,
"What if" uniforms became dresses, shoes,

Expand it to include other ideas:

"What if" arrows became pencils when they landed?
"What if" bombs became balloons? What message would you put inside of them?

Write a class "What If" poem.

Make a list of all the weapons the class knows about then talk about the useful things they could become.

Write stories using lines from the "What If" poem. "What If" during a war this really occurred? How would your enemy react? What would they do with these useful things? Why did this occur?

2. Have children write five rules for a good world to live in. Put your rules into a story context. (You might be a Congressperson working on a world constitution.) Have a discussion with your class about your rules.

3. After a class discussion about war, peace, or my perfect world, children might join together or individually write acrostic poems.

P is for...
E is for...
A is for...
C is for...
E is for...

Other words such as WAR or MY WORLD could also be used.

d. Storytelling

In this activity a story on the popular subject of a "Visitor from Another Planet" is begun orally by the teacher and then can be completed by the students in a variety of ways. Since many children are familiar with space tales and can readily imagine this event as occurring, the following story provides an easy format for finding out what your students know about war, the effects of war on people, the process of resolving war, and your student's ideas on a peaceful world. This story can be told after children's conversations and/or play about space movies and creatures or at any time.

One of the following starters allows us to make clear to the class that this story is fantasy and not a reality:

> "Once there was a planet far away where..." or
> "What if, on a planet far away..."

What follows is only the bare bones of a story that could be used. Please embellish it or change it to suit your own class.

"...the creatures had gotten very angry at each other. Some creatures who lived in one part of the planet were afraid that the creatures who lived in another part wanted to rule over them. All the creatures made many guns and weapons, and finally a war started. After the fighting had been going on for some time, and many creatures had been hurt, one group decided that they didn't like all that fighting, but they weren't sure how to end it. They wanted to stop fighting, but they were very afraid of their enemies. Someone said they had heard about a planet called Earth where many people were thinking of ways to keep wars from happening. This group thought that maybe the Earth people could help them stop their own war.

The inhabitants of this planet decided to send messengers to many parts of the Earth. The messengers were told to go to Earth and talk to the people there, and to bring back the following information:

> What makes people sometimes start fighting each other?
> How can you solve arguments before a war starts?
> What can you do to keep a war from starting?
> What if one group threatens another?
> What do you do with the guns and other weapons you have if you decide not to have a war?
> If a war starts, how do you try to end it?
> Does everyone fight in a war? Are some chosen?
> Does everyone work to end a war if one starts? Are some people chosen for that?
> Who decides what is needed to make their world a peaceful, happy place? What is the peaceful world like?
> What special things should our messengers tell the inhabitants of the faraway planet so they can help make it a peaceful planet?

Your story can lead the children to any of these possible follow-up activities:

1. Brainstorm class ideas for any of the preceding questions. List on chalkboard or large paper for all to see.
2. Discuss the suggested ideas.
   Chart or graph how many have each idea.
   Vote on suggestions, if desired.
3. Creative writing of stories or poems that conclude the story begun by the teacher. They could include:
   a) how the creatures met the human beings
   b) how they became friends
   c) what things and places of value to their peaceful lives did the Earth people show the creatures
   d) what ideas the people had for stopping the fighting
   e) what the messengers did when they returned to their planet
   f) how the war ended
   g) what happened to the farwaway planet and the creatures after the war ended
4. Picture making on one isolated part of the story, on the preceding questions, or on the story's conclusion.
5. Creative drama -- Form small groups of messengers, Earth people, and space creatures and improvise a scene from one part of the story. Perhaps the entire story can be dramatized and presented to the entire school and their parents.

e. Art

The following activities provide opportunities for children's visual expression of their feelings, wishes, and ideas about peace and war:

1. Draw or assemble a collage with the theme of: "What is important or of value to me in the world, or, in my life." (Refer to the poem "I Won't Hatch" by Shel Silverstein in Where the Sidewalk Ends.) Cut pictures or parts of pictures from magazines to show what is valuable to you in your world. Add details as needed with markers, crayons, etc. Discuss before, during and/or after making the collage how these things make the world special and what would be missing in our world if these things were not in it. You may want to remind the class of both natural things and things made by people that are of value.

2. Draw, paint, or make a collage on the theme of: "What is a very scary thing that you either heard about, or that has frightened you at some time," or "What do you think a war is like?" These activities may call for discussion and reassurance by you that adults are concerned about wars and are working to find ways to prevent them. You also may readily find out, through visual media, what children are thinking and feeling and what they know thereby laying the groundwork for what you may want to do next.

3. Draw or paint your own idea of a perfect place to live, or, what the most peaceful world would be like.

4. Design a peace poster, that you would like to see put up in schools for children, and their parents and teachers, to see. What designs should it have? What simple messages? Should it be in several languages? What symbols (explain at their level) would everyone in the world understand?

5. Design a flag with peace symbols.
   - -Discuss and show peace (and other) symbols.
   - -Discuss use of flags, where they are shown, when and by whom.
   - -Make up your own peace symbols, to add to usual dove and olive branch.
   - -Have a parade with peace flags; or mount them around room or in school hallway or auditorium.

6. Draw what you think the future will be. Draw a circle to represent a crystal ball. What do you see in the world's future?

III. GRADES 4-6

1. Developmental Factors

[Since there is a good deal of developmental disparity among children in this age range, we suggest that those who work with fourth graders also look at the guide for kindergarten through third grades and those who work with sixth graders, look at the developmental factors for junior high.]

As teachers, we are uneasy about initiating discussions on any topic that we feel could get beyond our control, frighten children rather than inform them, raise levels of tension rather than lower them. Every adult who deals responsibly with children shares these concerns. We may also be uncomfortable about introducing topics that parents might not want discussed at school or believe are inappropriate for children.

We don't want to frighten children, nor do we want to overload them with information or introduce subjects for which they are not ready. Many children seem to be unaware of the arms race and its implications for their lives. Some are undoubtedly secretly fearful but, for one reason or another, cannot express their fear in direct or useful ways to each other or to the adults around them. Others do express fear in a variety of ways, some of which help alleviate terror, some counterproductive.

Even though children's reactions to frightening issues take different forms and are experienced with different levels of intensity according to the nature of the particular child, there are some characteristics which, although common to people of all ages, could be said to be more vividly present in children of these later elementary school years. We want to consider here their implications for classroom discussions of the arms race and related issues.

We hope, by our suggestions, to help you offer children opportunities to ask questions, express feelings, take actions appropriate to their ages and situations; in other words, recognize children's fears where and how they exist and support them in dealing with those fears.

Children from 9 to 12 are often extremely interested in facts. They are collectors of facts, always eager to add to their store. The informal activities we suggest are meant to help these children deal with their anxiety in their own way: by learning and quoting "the facts." Some children may ask direct information questions.

S: "What happens to people when a nuclear bomb explodes near them?"

T: "Lots of things happen. It depends on what kind of bomb and how close they are. Would you like to find out some details?"

-or-

T: "People are badly burned, and some of them die right away. Others die later from burns and from sicknesses they get from radiation. That's why lots of people want to be sure no one ever explodes a bomb again."

If you have a couple of good reference books on hand, those who are interested will be able to look up information for themselves.

We assume that teachers will mainly ask children questions and listen closely so as to hear their concerns, in discussions. For specific examples of such dialogue, we refer you to the K-3 section. Because of the changing needs of the nine through twelve year olds, however, it is important that we be ready to introduce facts into the discussions as well, in order to meet their growing desire for information about issues. This does not mean that listening is no longer appropriate, but that more information will be demanded of us, either directly or indirectly.

Fourth through sixth graders are also likely to be rigidly justice-oriented (although their principles can break down when strong personal interest is at stake). Their "fair-mindedness" may manifest itself in a number of ways, a common one being a sense of outrage that the grownups could do this to their futures. "It isn't fair!" Along with the sense of justice comes a kind of literal-mindedness. For these children, it's convincing to count weapons in order to see who's ahead in the arms race and the more subtle distinctions of strategy and deployment are of less interest. They believe that more is better -- and safer.

Faced with these attitudes, you can ask further questions about the arms race: from our viewpoint, from the Russians', from that of the other NATO countries. You can take advantage of children's newly acquired ability to take others' points of view. You can also emphasize the efforts of many adults to be fair to them, the children of the world.

S: "It's just not fair that other people made the world like this and we have to live in it."

T: "We agree. Lots of grownups all over the world are trying to find ways to make the world better and to get rid of things like bombs. Maybe you could help by writing letters."

-or-

T: "Let's find some ways, then, of letting people know how you feel."

At this age, children are often attracted to sensationalism. They show intense interest in drama of the blood-and-guts variety which they may impose on their classmates in less than helpful ways.

"My brother told me that your eyeballs melt if you look at a nuclear flash."

We need to think about ways of dealing honestly with this sort of statement (which can cause nightmares for other children). Most of all, it's necessary not to lie to children nor try to gloss over their comments since, even if such comments are difficult to cope with, they are one way children seek reassurance and understanding from adults.

S: "I heard it only takes ten minutes to crisp a whole city."

T: "I'm not sure. I think it depends on where the bomb detonates. Do you want to find out more about it?"

-or-

T: "That depends partly on how powerful the bomb is. It's true, there's a lot of destruction in a very short time. That's one reason people are so concerned."

Along with sensationalism, children may show an apparent love of violence and conflict: a strong interest in fights, danger, divorce, war, guns, explosions, violent death. It's hard to have a clear sense of how to react to children's spontaneous discussions, drawings, re-enactments of scenes of violence, particularly since violence is so prevalent in our adult culture. Again, we refer to the K-3 section for some examples and guidelines.

Thinking and talking about a peaceable classroom, peaceable world, a positive future and how to help bring it about may, in the long run, have equal appeal for at least some of the class, especially if the ideas are presented with some imagination.

Some children deal with anxiety through humor, however clumsy:

Q: "What did the music store say to the instrument?"

A" "No ukes allowed. (Get it? Ukeleles...)"

Although sometimes annoying for teachers, humor provides relief from tension, a non-threatening way of talking about scary subjects.

Another way children protect themselves from fear is by creating reassuring fantasies. Escapism is a common coping strategy for adults as well. Children who are especially prone to fantasy can be guided toward expressive activities -- writing stories or poems, drawing or painting pictures. It may be difficult for you if children express their fantasies to the whole class in terms of solutions.

S: "My daddy and mommy say that all we have to do is go downstairs in the cellar and we have enough food for a month."

T: "Some people think bomb shelters will help, and some don't. It seems to make you feel safe."

-or-

T: "Civil defense plans make some people feel safe, too, but a lot of people feel the best way to be really safe is to make sure bombs don't drop at all."

Again, it's important to think through how to handle this sort of statement without destroying its function for the child who expresses it. The child may have doubts about its efficacy even as he or she asserts it; questioning it may remove a much-needed support.

The most difficult kind of reaction is that of frozen denial: the child who, when the subject of the arms race comes up, sits with a closed, frightened face. How can a teacher deal with such a child? Not, surely, by forcing knowledge upon him or her. After making a sensitive assessment of the situation (is the child overwhelmed by the discussion? preoccupied with other issues? unconcerned? new to the issues?), you may be able to determine an appropriate response.

Children from 9 to 11 or 12 need adult support, protection and communication. Some are afraid that the adults they know will abandon them emotionally. They need to know that adults care and are working with and for them to help insure their futures; that adults share their concerns; that these anxieties are real:

> "Yes, many adults are concerned. That's why we're trying to find ways to change things. If enough of us get together, we will."

You may find it helpful to talk with our colleagues so you can clarify your own feelings and thoughts. You will almost undoubtedly recognize in them some echoes of the children's feelings. In thinking, feeling and acting, we all need support and sympathetic community.

The activities in the 4-6 chapter highlight lessons in resolving conflict peacefully and exploring how children think and feel about fearful situations. Some children may be ready to clarify facts about nuclear weapons and activities are included for that purpose. The priorities at this point should revolve around problem-solving activities that encourage children to use skills of negotiation and conflict resolution in order to learn alternatives to force.

We want to avoid putting the child in a bind between parents' values and ours. Fourth through sixth graders may have trouble handling what they perceive to be a conflict. Therefore, it is essential to support their parents' positions, making all viewpoints legitimate and to encourage an understanding that people show their concerns about the future in a variety of ways.

2. Starting Points

The following suggestions will give you a variety of ways to start talking with your students about the issues of world peace and nuclear disarmament. One of the major goals of the Day of Dialogue is *finding out what students feel and know about nuclear weapons and the threat of nuclear war so that we can appropriately meet their needs for support and information.* However you approach these issues in your classroom, remember to LISTEN carefully to your children's ideas and expressions of their feelings.

Since discussion is central to the introduction of these issues, we'd like to suggest to you some discussion guidelines we have found helpful:

1. Children should feel free to share any idea that comes to mind. They should also feel free NOT to share a private thought or feeling. You can help your children feel comfortable by accepting any comment without judgement. These comments can be written on the board as they are made, so every one can read or write them.

2. Having your children sit in a circle makes it easier for them to talk to each other and to you.

3. Although you should be honest in expressing feelings, it is important not to burden the children with our own fears. Your participation in this Day of Dialogue will show them that adults are working hard to resolve the problems raised by the nuclear arms race. We must reassure our children that conflicts, whether personal or global, CAN be resolved without violence.

4. It's useful to have children summarize and repeat the gist of what has just been said. This is one way to assure attention to one another's feelings and ideas. All of the children need to be encouraged to listen to one another and to respect differences of opinion.

Your students will respond to this kind of discussion in diverse ways, including fearfulness. The Developmental Section includes helpful ideas on how to deal with many of these responses. A period of silence after a difficult discussion may help the class settle their feelings. It is also important to give children an opportunity to talk about their experiences through activities such as those suggested in the next section (FOLLOW-UP ACTIVITIES).

We offer a variety of starting points here for your selection. Only you can judge which will be appropriate for your students. Please let us know what works for you and your class!

3. Activities

a. Brainstorming/Web Chart

"Brainstorming" is an effective way of gathering children's spontaneous ideas and impressions about almost any subject. Responses are usually written on the blackboard or on a large piece of paper for all to see. A "Web Chart" places the words or phrases elicited by a brainstorm in a connected form.

We suggest that you start with "CONFLICT" as the subject of your brainstorm/web chart, although "PEACE" or "WAR" or "WEAPONS" could also be used. Write the word in the center of the board (or paper) and circle it. Ask the class what it means to them -- what associations, experiences, or feelings it evokes. Each time something is suggested, draw a solid line from the main circle and add the word or phrase:

As students begin suggesting ideas related to those previously written on the board, link them to the appropriate previous contribution rather than to the main circle:

Continue "webbing" as long as interest is high.

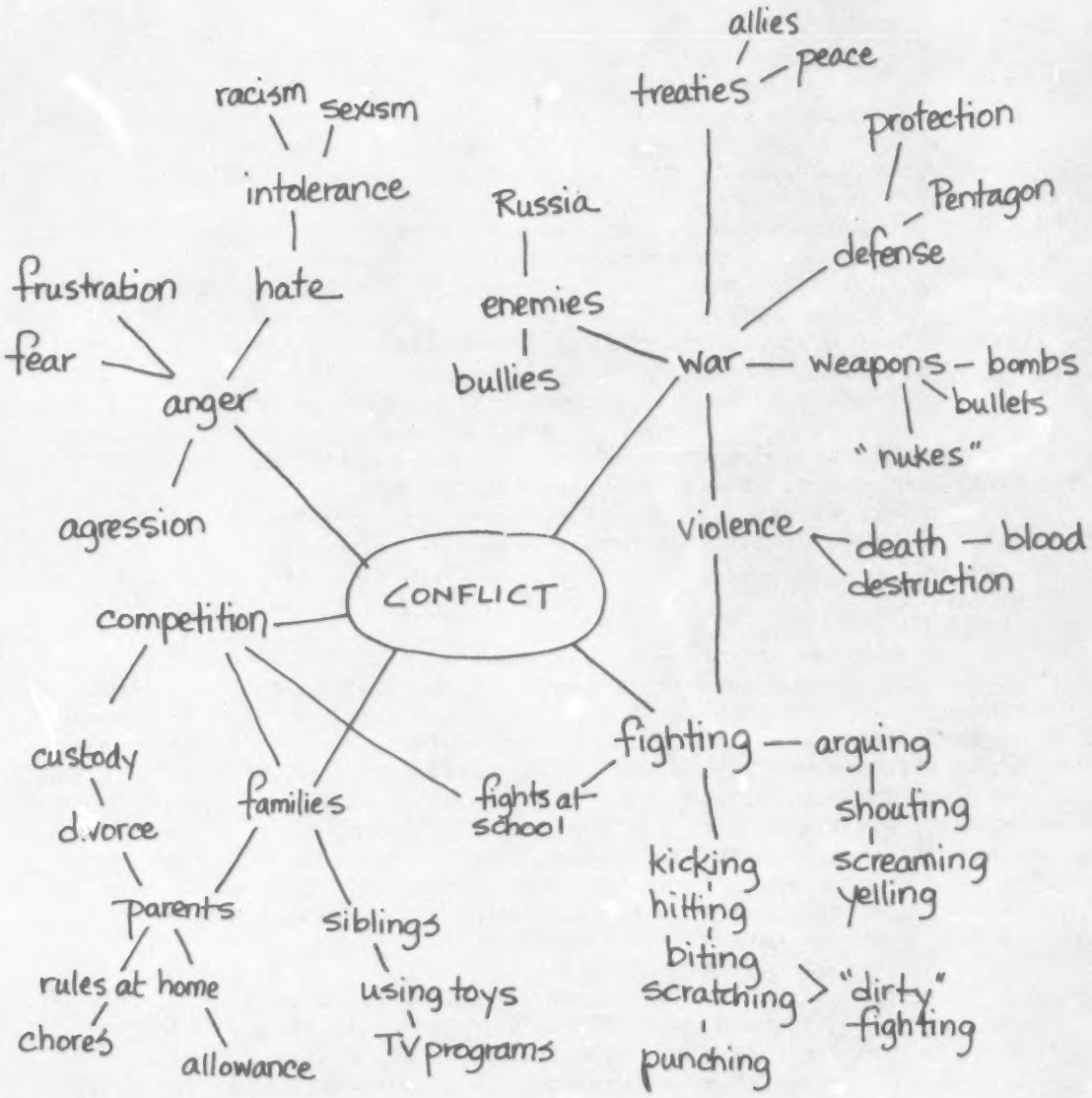
Discussion: How could we define conflict?

-What elements do all conflicts seem to have in common?

-What causes conflict?

-What makes it worse? What cools it off?

A completed web chart might look something like this:



b. *Monsters*

Some fourth, fifth, and sixth graders have been frightened by specific episodes in films. Some have seen lots and lots of horror films on television. If you feel comfortable with it, you might ask your students to talk about scary things on TV and to describe the monsters they're freaked out by. You might ask:

-What are the characteristics of those monsters?

-What are their powers?

-What is scary about them?

-Can monsters really destroy the entire earth?

-Which monsters threatened to do so?

-Were the monsters able to?

-Did people try to understand them?

-How was the destruction of the world prevented?

Discussions of such themes may elicit specific reference to stories of bombs, of war, of holocaust, of problems with ecological balance such as using up the ozone layer. It would be helpful to find some ways of talking about how people in movies, on TV, and in real life are able to take action to prevent their worlds from being destroyed.

Often there are steps to the process, especially in the TV movie plots. First, the monster is created -- usually through accident. Second, its power is used against people -- usually quite inadvertently on the monster's part. Third, someone points out that there's some monster with power loose, and no one believes him until a lot of people are killed. Fourth, they call in the army to handle the problem with force -- but the weapons don't work. Fifth, they have to find some other way to deal with the monster. Sixth. the monster is generally stopped by some equal force and then laid to rest in some fashion. Usually the film ends with people vowing not to mess around with nature or the powers of the cell or something else.

You can use steps like these to discuss fears that arise from environmental, nuclear or adolescent issues. In this way children can feel more in control of their lives in relation to these issues. Questions that may draw out this discussion are: "In these pretend movies, how do people deal with forces that seem to be unstoppable? Do their ways seem reasonable? What other ways are there?"

Another possibility is to have a discussion about E.T. and talk about children's fantasies about being powerful. You might explore how adults and children reacted to encountering a being from another world.

c. *Stories*

One characteristic of the fifth and sixth grader is a new capacity for nostalgia. You can perhaps take advantage of enjoying looking back on earlier beliefs and fears about life by reading some "little kid" stories about fears, and asking them to compare things they used to be afraid of with things they are afraid of now.

1. Read Where the Wild Things Are to notice the way Sendak shows monsters in dreams as scary. You might ask:

-Did it scare you when you were little?

-What's scary about the book?

-What's good and comforting about the ending?

-What would you say to a smaller child who was afraid of the story?

-Are there things you're afraid of now?

-What are some of them?

-What do you say to yourself to reassure yourself?

-What could you say to another kid who was afraid of those things too?

2. Read Let's Be Enemies to look at the way the book shows a contrast between being enemies and friends. Talk with your students about these questions:

-Do little kids understand what an enemy is?

-What was an enemy for you when you were little?

-What were the rules of being enemies then?

-Do you have enemies now?

-What are the rules of being enemies now?

-You might try to talk a little about the connectedness of enemies -- that to be enemies follows rules which are often elaborate, and often very much like friendship.

-How might one convert enemies to friends?

-How come countries that used to be our enemies in the olden days are now our friends? (e.g., England in the Revolutionary War, Japan in World War II)

Help your students contrast their current fears with their past fears. Suggest they draw or write about their fears. Perhaps they could produce a book of scary things for smaller kids, and help them to see ways to overcome those fears. Perhaps they want to ask grownups how they reassure themselves about some of their fears.

You, as teacher, might want to think about ways you reassure yourself about your own fears. There are some useful coping mechanisms which you could perhaps identify for your students -- denial, avoidance, magical thinking, learning all you can about a subject, getting involved in some kind of action (if you think a monster lives under the bed, install a fluorescent light...).

d. Negotiating

1. Write "negotiate" on the board and have the class read it aloud if they can. Ask if anyone knows what it means.

2. Explain that negotiating is a way of solving problems between people so that everyone can win. Then list the following steps on the board:

    1. Say what you think the problem is.

    2. Say what you want.

    3. Say what the limits are.

    4. Work out an agreement.

    5. Is everyone happy?

3. Walk the children through the steps with the following situation: Kevin keeps calling David "Fatso" and other names; David breaks Kevin's pencils and crayons.

4. Give students situations from different content areas to use for practice in negotiation. Math and Social Studies are particularly good sources of situations.

5. Discuss:

    In what kinds of situations might you want to negotiate?

    How would you ask the other person to negotiate?

    What if they won't do it?

    What problems can you see arising during negotiation?

e. *Cooperative Games*

These are just a few of the many cooperative games that have been designed to help children experience the fun of playing together, rather than against one another. (See BIBLIOGRAPHY for suggested cooperative game books.) They might spark a valuable discussion about the feelings engendered in cooperation vs. competition.

1. Two partners face each other, place the palms of their hands together, and take a step or two backward so they are leaning on each other to maintain balance. Then, in unison, they try to push each other back into balance without moving their feet.

2. Two partners sit back to back, with bent knees and linked arms. Leaning on one another, they try to stand up.

3. Two partners stand facing one another, palms touching, about three feet apart. They take turns falling toward each other and being supported by their partner's palms.

4. Partners stand facing one another and stretch their arms straight out in front until palms are touching. Both partners then close their eyes, drop hands, and turn around in place three times. Keeping eyes closed, they then try to reconnect by touching the palm of either one of both hands.

5. Several children make a tight circle, standing or kneeling shoulder-to-shoulder. One person stands in the middle with body stiff and falls in any direction. People in the circle catch and push him or her upright.

6. Make a tight, shoulder-to-shoulder circle with as many children as are present. Everyone turns in the same direction. At a signal from you, everyone tries to sit on the lap of the person behind. Great hilarity!

7. Children lie down in a circle with heads on one another's tummies and try not to laugh!

8. A large group of children measure the length of time they can keep a large ball or balloon(s) in the air. This can be done outside or even sitting in rows or groups of desks.

9. Several children stand in a circle, place their hands in the center, and take hold of the hands of two people other than those immediately next to them. Then the group works together in an attempt to untie the knot without releasing handholds.

10. Have children make a human sculpture. Start with one person taking a position. Others, one at a time, join the sculpture by touching one part of themselves to a person already part of the whole.

11. Children could make a human machine similarly. Each person chooses a simple, repetitive motion as well as a position -- taking care to "fit" into the whole.

6. *Others in Brief*

1. Ask your students what they know or have heard about conflicts around the world and/or the nuclear arms race.

2. Bring in a current newspaper article about the fighting going on in some part of the world (even a local conflict) and share it with your students. Elicit their ideas as to how to resolve the problem.

3. Read Sadako and the Thousand Paper Cranes.

4. Watch the short film "Neighbors," produced by the Canadian Film Board and often available in public libraries.

5. Present a hypothetical conflict which might take place in your classroom. Brainstorm with your students possible ways to resolve that conflict. Discuss the advantages and disadvantages of each solution suggested.

6. Write this statement on the blackboard: "The difference between nuclear and unclear thinking depends on how you use the U.N." Ask children what they think the statement means. Do they agree?

7. Have children draw pictures of "The Future." How will their world look in the year 2000? Share the drawings and discuss them. If some children draw pictures of war or devastation, discuss ways to avert such disasters. If not, ask your sturdents how they might insure the positive view they have.

8. Design a "test" on any subject and give it to your children twice. The first time, award a prize for the best score. The second time encourage the children to help one another and award prizes to everyone (e.g., a sticker, 10 minute extra recess) if the class average improves or reaches a set amount. Discuss the results.

9. Have students collect pictures of weapons. Discuss how each is used, which are the most scary, why would someone use these weapons, and how conflicts might be resolved without weapons. Are there invisible weapons?

10. Introduce and discuss the possibility of solving a problem where both parties "win." Give a sample conflict situation and use this chart to explain different kinds of resolutions:

	A gets what she wants	A doesn't get what she wants
B gets what he wants	WIN-WIN	WIN-LOSE
B doesn't get what he wants	WIN-LOSE	LOSE-LOSE

Three examples might be:

1. John calls Joe "Dumb." Joe grabs John's books and throws them on the floor.

2. One homeroom in a school feels that they want to have the school rules changes so that they can chew gum in school. The Principal says that no one has been allowed to chew gum in school in the past and does not want to change the rule.

3. Country A owns a small island off the coast of Country B, many miles away from Country A. The government and the people of Country B are upset, and they believe that it should belong to them.

4. Follow-Up Activities

It is extremely important for children to have a chance to participate in activities that allow them to process the possibly disturbing feelings generated during a discussion of these issues. The follow-up activities we suggest here have been grouped according to their focus: INFORMATION, EXPRESSION, or ACTION. We've categorized these activities for your convenience, but they are complex, so that many of them actually fit into more than one group.

You might want to offer your students a choice of activities to meet the differing needs of individual children in your class (see Developmental Section), or you could all work on a project together.

Some of the activities suggested can be completed on the Day of Dialogue itself. Others could take much longer -- especially those involving research or political action. Some might be assigned as homework, which could be an excellent way to involve parents. Our ideas are the result of our own experiences with our students -- please share YOUR ideas with US!! We are all involved in the process of discovering how best to talk with our students, colleagues, and communities about these very sensitive issues: we need to work together and support one another in this process.

a. Activities for Information

In order to find out more information, many children will want to go to factual books on the subject. Some may prefer to find films, television documentaries, or use newspaper and magazine articles for their information. In any case, the suggested activities are for those children who are interested in finding out all kinds of facts, and who need to focus their learning on some kind of data collection.

1. Find out when the first atomic bomb was used. Who used it? Where? Why? What good came from its use? What bad came from its use?

2. Create a timeline that describes key events in the arms race. Draw bombs of appropriate size to represent new developments in the technology.

3. Create a world map showing countries that have nuclear capabilities and those that do not. Put up markers of varying sizes to indicate the number of weapons these countries have. Are there patterns in the locations of the nuclear nations?

4. Find out what organizations in your area are working on disarmament issues. Ask for their help in understanding what can be and is being done NOW. Perhaps they can provide a speaker or film for your school/community. Ask how YOU can help THEM!

5. Write to embassies/consulates of other countries asking for information and literature on the problems they are facing and how they are being dealt with. Find out where the countries are and more about the people who live there -- beliefs, life-styles, needs, etc.

6. Have students correspond with the children in a school in another country. This is an opportunity for sponsoring a Soviet-American exchange. For further information, contact:

   International Friendship League
   22 Batterymarch Street
   Boston MA 02109
   (617) 523-4273

7. Compile a booklet of facts about the arms race. There are many places to write for this information. Your congressperson ought to be particularly responsive. You could write to the Department of Defense, the Civil Defense group in your area, the U.N. Commission on Disarmament, as well as many of the groups which are sponsoring the Freeze and sponsoring information exchange.

8. A useful math activity involving graphing and figuring percents could be developed from looking in newspapers for a week and counting or clipping all items related to the arms race. Compare a week's worth of articles in June, and a week's worth in February.

9. Sixth graders often need to learn to use the Reader's Guide to Periodic Literature. For those who are interested in the arms race, a good way to practice is to research some aspect of the arms race in five or six major magazines over the past year.

10. Use dictionary, newspapers or magazines for any words or concepts you want to know more about. You might create a vocabulary list or spelling list of words connected with the arms race.

11. Newspaper clippings collected might be put into a scrapbook (with space for comments) or displayed on a bulletin board or collage/ poster.

12. Some children may want to find out how an atomic bomb actually works. There is an excellent chapter in the book Nuclear War: What's in it for You?, written by Ground Zero. This is difficult reading, and children may need help understanding it.

13. Collect newspaper articles about conflicts around the world. Try to find articles which express both sides of each issue. Have a discussion or debate or brainstorming session as to how best to resolve the conflict. Share your ideas with others.

14. Visit a local toy store. Figure out the percent of games and toys that relate to war or weaponry. Talk with the manager about what you discover.

15. DEBATES:

Older children might enjoy a debate on some issue related to the arms race. They might use, for information, the last five years' of Time or Newsweek magazine as well as many of the books listed in our bibliography. Have them research both sides of the issue. Explain that they should come up with the major arguments and supporting facts on each side. Then conduct the debate, assigning to specific students the jobs of proposing or rebutting a resolution. It's important that you NOT emphasize winning or losing a debate, but to use it to explore the complexity of the issues involved. Here are a couple of topic ideas:

1. Resolved that: "The U.S. should spend a larger proportion of government funds on social programs than on defense."

2. Have children research and debate the dropping of the bomb on Hiroshima as though they were in Truman's cabinet. There is information available in biographies of Truman and of some of the generals involved.

b. *Activities for Expression*

Expressive activities help children sort through confused and fearful feelings. Those who are prone to fantasy will find expressive activities particularly useful.

1. Children could draw or paint a picture of "A Place I'd Like to Live." They should be encouraged to invent any kind of place they want -- under water, in the sky, in trees, etc.

2. Have children draw or paint "A Peaceful Scene," keeping in mind the elements of peace -- color, texture, space, living things, etc.

3. Construct, with scrap materials glued onto squares of corrugated cardboard, "A Safe Place." Ask, "What kind of place makes you feel safe? A deep place? a high place? a nest? What makes a place safe? Why do we need safe places?

4. Have children draw or paint a picture describing their feelings about CONFLICT. Each retelling about their creation to classmates can help dispel the fear they may feel. All views are accepted, no matter how much they may differ.

5. Have jigsaw puzzles available for your students to do together as a cooperative activity. You might set one up in a corner for children to do at "free time." UNICEF has a set of 3 puzzles on an international friendship theme for different age levels.

6. Gather in a small group and encourage the spinning of fantasies about how you would change the world. Hostile or violent fantasies should be accepted, for this mental revenge can help defuse anger and fear in a harmless manner. Venting of negative feelings may lead to realizing more positive ways to shape the world.

7. Use the words and phrases elicited by a brainstorm about "Peace" to write poetry (free verse or other). Have children illustrate their poems and display them in your school/community or make a class book for your school library. For examples of children's poems you may want to use My Shalom, My Peace described in the K-3 section.

8. Use role-playing, puppetry, costumes, skits, and story-writing to reflect your children's views about what's going on in their world. Have children create skits that solve a particular conflict -- the child is empowered when he or she is able to act out possible solutions to a problem.

9. Some children are more comfortable writing about their thoughts and feelings in privacy. Provide a journal for these children to write in.

10. Some people object to the traditional dove peace symbol because doves are rather violent and vicious birds. Have your students create new peace symbols using animals, designs, or whatever inspires them.

11. Have children design a world flag. What are some appropriate symbols? Colors? They might research international flag designs, and discuss common elements in them, prior to creating their own.

12. Have children design a "Banner for Peace." You might want to work with your school art teacher on this activity.

13. Present sample situations and have them state the different points of view. Try having them rewrite fairy tales from the point of view of the villain.

14. Study about hero(ine)s of the peace movement -- e.g., Gandhi, Martin Luther King, Jr., Helen Caldicott. Write a play or a book about one or more of these people to share what you've learned.

c. *Activities for Action*

These are some suggestions for ways your students can bring their beliefs and feelings into the community. Some of these activities will require parent support and involvement. While it is not the children's responsibility to take action, it may help them feel empowered. The initiative should come from the children themselves and not from an adult's desire to express their own views.

1. Write letters to the President and other government representatives (local as well as federal). Have children express their views concerning the nuclear arms race and ask about what's being done.

2. Create posters and ask neighborhood shop owners to display them.

3. A group of children might like to meet with religious representatives in their community to encourage them to arrange a special program about nuclear war for a church or synagogue service. They might discuss this issue with their Sunday School teachers.

4. Some children could put on a play or neighborhood fair which has as its theme the prevention of nuclear war.

5. Children could put together a TV and/or radio message about the nuclear arms race. They might create an advertisement or a short program (including interviews, information, songs?) which could be aired on local stations.

6. Some children might like to design an advertisement which could be placed in a local or school newspaper expressing their views on the arms race.

7. Using blank labels, have children design stamps or stickers that can be affixed to envelopes.

8. Prepare a picture window display with your children and find a bank or other public institution in which to place it.

9. Have your students design a Peace Mural. Ask the public library or local City/Town Hall to display it, or paint directly on a blank wall (for example, at a construction site).

10. Learn some peace songs and have your children present them as a concert for the school or community.

11. Make books for your local school or public library. These could share information learned, personal perspectives on war/peace, poems or stories inspired by your discussions of these issues.

12. Have children create cartoons or comic strips with superhero(ine)s fighting for the eradication of all nuclear arms. Since the powers of superhero(ine)s are not real, you may want to follow this with a discussion of the powers people actually have to create change.

13. Some of your students might like to design placemats which can be laminated and placed in local eating places.

14. Organize a "Children's March for Peace" through your neighborhood. Children could display banners or posters that express their views.

15. If you have access to a button machine, have children design "Buttons for Peace." Recycled "wooden nickels" or heavy cardboard circles could also be used.

III. JUNIOR HIGH AND HIGH SCHOOL

This section, designed specifically to help junior high and high school teachers and students plan their Day of Dialogue, includes teaching ideas and activities that will help students improve skills while they learn about the nuclear arms issue.

You can participate in the Day of Dialogue in a number of ways. On the simplest level, you may choose to talk with a few other people -- in faculty rooms, the student cafeteria, or after class with some friendly students hanging around your desk. Or you can do something special in one or all of your classes: a reading and discussion, a writing assignment to elicit student feelings and concerns on the subject, a few exercises, a debate, a film. You will find specific suggestions for all of these. Also included are teaching ideas that will take more than one period: projects, research, and visits from community speakers. You may want to encourage activities that will go beyond the classroon: activities planned by two or three teachers or by whole departments, by student clubs and organizations, or by coalitions of teachers, students, and parents. Some groups will plan informational displays with posters and pamphlets, others will plan a day-long symposium with speakers and films. Other schools will use the day to write letters, circulate petitions, or organize rallies.

By combining the junior high and high school materials, we do not intend to suggest that junior high and high school students are interchangeable. Instead, we recognize that many of the school situations are similar in terms of structure of the day and organization of subject matter. We realize that within any junior high or high school class, you will find a wide range of students. For this reason, we have included separate sections that describe some of the developmental concerns of junior high and high school students related to the study of nuclear weapons. We urge you to read both sections, keeping your own students in mind.

Following each developmental section are some "starting point" activities. They focus on discovering what students are feeling and thinking about their futures, and to what extent the issue of nuclear war or the arms race is on their minds. Some, probably most appropriate for high school, are designed so that they can be initiated by students. As with all of the materials in this guide, feel free to adapt the activities so that they best meet the needs of your particular group of students.

1. Developmental Factors:

a. Junior High

Early adolescence marks a profound transition between childhood and adulthood. We have found junior high school students to be challenging, unpredictable, and highly variable in their interests, development, and approaches to the world. We need to support both their new, more adult, abilities and the more literal, here-and-now, childhood ways of thinking. This creates a balancing act for a teacher, producing both energy and tension as we work with a constantly changing group.

Dealing with concerns about nuclear issues in classrooms is not easy. Precisely because of their changing nature, junior high school is not an easy place for students. They are always in motion. We see this in seventh grade lunch lines, which resemble nothing so much as perpetual motion machines. Intellectually, their minds are always moving as well, collecting and processing ideas from many, many areas -- sometimes we call this daydreaming. We can capitalize on students' hunger for knowledge about the real world even as we work to understand their perceptions of the nuclear arms race and nuclear weapons.

Because of young people's vulnerabilities, however, it is important that we deal carefully with such a sensitive area as nuclear weapons. We recommend you read both the fourth through sixth grade and high school sections as you plan your Day of Dialogue. Your class may be more like a high school class in interests; or more closely resemble upper elementary school children. More likely, you will see a profound mixture of concerns, interests, and abilities. For this reason, it is important that you listen to children -- that you hear their perspectives, their worries, their ideas. As you listen, some of their patterns of thinking may indicate to you how to support them in wrestling with the profoundly important issues of the nuclear arms race and the dangers of nuclear weapons. Some of your students may appear to be unconcerned; some may be deeply frightened. We need to think carefully about ways of proceeding.

A long-term future orientation. Most students in junior high school develop an ability to imagine a future and a distant past as well as a deeper sense of the complexities of the present. They can imagine a world beyond their own life spans and themselves as part of an onward flow of time. This ability is both a curse and a blessing: they can see a future life for themselves, but they can also imagine their own deaths, and understand that time will continue without them. This has always been a characteristic of adolescents; unfortunately the nuclear arms race feeds this fear. We have to anticipate that some students will be frightened in junior high school, precisely because of this newly emerging ability to imagine disaster and see it in reference to themselves. We can provide classroom activities that utilize their future orientation in positive ways; imagining a Utopian view of the world, designing a perfect society.

Because of their interest in the future, many junior high school students view themselves as members of their community, and see the complex interaction of adult roles in creating and maintaining this community. It is useful to build on this understanding by bringing in speakers from the community, by helping students find information through taking part in community events, by interviewing concerned adults, and by finding ways of assessing community attitudes. We can also help them take appropriate action. Section 7, "Taking Action," has some suggestions that may be useful.

Peer relations. With their new ability to take others' perspectives, junior high school students learn that others have opinions and images of them and their behavior. This creates the threatening realization that others' opinions carry social weight and have some real consequence for their acceptance or rejection by their peers. Peer pressure takes on a powerful role at this stage: for many students, it determines their behavior, their views of the world. They may actually give themselves over to their peer culture, letting others' views define their own.

This kind of giving up of autonomy manifests itself in changeable attitudes and beliefs, so that many students may appear to have no set value system. A student who takes a strong position on an issue one day may completely alter it the next. Other students become rigid adherents of a particular point of view and become so identified with it that they feel personally attacked when it is criticized. It is important that we tolerate either manifestation -- students' views need to be accepted, no matter how changeable or rigid.

Class discussion is sometimes difficult, since some students feel that the exposure of their views on controversial issues exposes them to potential ridicule. Many teachers have found in-class written work (short notes, journals, or brief outlines) useful as prelude to discussion, so that children can participate in clarifying their views whether they talk or not; children who are silent in classes need help in expressing themselves in other ways.

Students often enjoy taking on others' roles, speaking as though they were someone else. Debates can be useful so long as the students understand that it's a formal exercise and they need not agree or disagree personally with the position they are taking. Role-playing can involve imagining being students in the Soviet Union or in another country, seeing the nuclear arms race through their eyes.

Most important, however, is that students be supported and listened to in our classrooms. The environment for discussion must be emotionally safe; children need to know we will protect them and their views.

Adults as necessary impediments. Because of a desire to become independent of adults and of the rules of adult society, students reject signs of adult interference, often perceived as adult attempts to "mess with" their belief systems. It becomes important, then, to avoid bias, since students will often reject any information that they consider propaganda. We can teach students about propaganda techniques and the dangers inherent in opinion manipulation. We can do close analysis of literature about nuclear issues. Analyzing television shows, films, and in-class panel presentations can help students learn to evaluate information for themselves.

As adult input is rejected, however, it still remains important in our students' lives. This very rejection of ideas shows that adults continue to influence students' ideas and imagination. At the same time that we support our students' need to disagree with each other and with us, we must also be sensitive to their vulnerability to criticism, whether from us or from peers.

The real vs. the ideal. Adolescence is a time of developing ideals, and the real world seems flawed in many ways. Many students express a sense of outrage that adults have created a mess for them. Some feel that they are being abandoned by adults, left to deal with a horrible legacy of nuclear arms.

We must listen closely to their concerns, hear their outrage, and show that some adults are deeply committed to helping them clarify their own views, find their own approaches to action, and express their feelings in their own ways.

Our students do have a perspective different from ours. If they can learn to listen to each other, they develop a sense of their own community. They need to communicate with each other, and perhaps with students from other classes, other schools, other countries. The comfort derived from shared perspectives contributes to emotional survival, and we must help them develop tolerance for a range of opinion and response.

b. High School

As we designed activities on nuclear war issues appropriate to secondary school classrooms, we found it necessary to think about some of the traits of older adolescents. We considered how high school students might react to a Day of Dialogue, and how we might respond. In this section, we share those concerns with you, so that you might think in advance about possible reactions of your own students. They are, of course, generalizations that apply in varying degrees, and are issues that arise at all ages. Some are new to adolescence, others are extensions of earlier concerns. Many of them recur in adults as well; if we keep in mind that we have common concerns with out students about these issues, we are more likely to create a successful dialogue.

Identity issues: View of the future. Adolescence is a time for individuals to define who they are, what their role is in the community, and what their personal future will be. "Who am I and what will become of me in this nuclear age?" is a question that faces all of us, but it is especially disturbing to adolescents who are struggling to create an adult identity. Since the view we hold of our future has a direct impact on how we act in the present, we may find students whose attitude is "Nothing matters because we'll all be blown up in a few years anyway." This nihilism has always been a theme of adolescence -- unfortunately the world situation makes this a real possibility.

High school students can gain some sense of control over their futures through appropriate action, suggestions for which can be brought up in class discussions. Group action is especially empowering to the alienated adolescent. (See Section 7, "Taking Action".) There are no simple tricks to solving the problem of the adolescent identity crisis; but as teachers we want to be as aware and sensitive as possible.

Choices already made: You may have some students who have already decided to enlist in the military or to work in a defense or nuclear-related field. This could raise issues of loyalty because of their personal commitment. Classroom discussions can support them and their classmates in developing informed personal points of view. Again, a sensitive and non judgmental attitude on the part of the teacher goes a long way.

Complex peer relations. Acceptance. One way that adolescents establish their identity is by the reactions they get from their peers. Being accepted assumes great importance. For this reason, some adolescents are often afraid to voice an opinion that might differ from their classmates'. To encourage students to feel safe to say what they feel, teachers should strive to set a tone of tolerance and acceptance of all opinions. In addition, we need to provide some opportunity for students to reflect and express their thoughts in privacy. We have found no better way to do this -- in all subject areas -- than through the use of journals.

Since writing provides a way to discover new ideas and feelings, using journals in conjunction with Day of Dialogue activities is especially valuable. Suggest that students keep journals to react to class activities, assigned readings, television shows, or discussions and interviews with family members or friends. Some may be willing to share their journals with you, or even with the entire class, after they've had time to do some private editing. If you do read the journals and comment on the ideas, even briefly, you set up a very personal dialogue with a student. Journals that are kept over a longer period of time give students a history of their reactions from which they can see patterns or changes.

Sex roles. Because our society tends to value overt displays of power, you may find that some adolescents equate war and military strength with masculinity and power. By the same token, the desire for world peace may be considered effeminate and weak. This makes open discussion difficult. If you find this attitude prevalent, try asking students to define their concept of strength or power. Even those who hesitate to state their views on war may be able to present alternate views of strength and/or power (e.g., the power of silence, passive resistance, non-participation).

Thinking about the world. Some people call adolescents "the conscience of our society" because of their high ideals and vision of what the world should be. In discussing the nuclear war issue with adolescents, then, we should keep in mind the unique contribution they can make to the dialogue. Above all, we should be careful not to patronize them for being naive -- or get angry at them for being cynical, which may simply be a sign of their disillusioned idealism. Seeing the world as it is does not exclude also seeing it as it could be. We can validate our students' idealism and fight their cynicism by empowering them with the information and skills to take a stand on the way they want their world to be. (For a good activity to get students to focus on their idealism, see the "Envisioning the Future" exercise in Section 6.

Fairness. Adolescents' feelings of powerlessness leave them victimized by what they perceive the adult world has done to them. They may be angry that adults have created problems and conflicts that they are left to solve. You may hear, "It's not fair," or just perceive a less vocal resentment of adults for having failed to take care of them and the world. If we deny the problem, or refuse to discuss it, we only reinforce adolescents' anger at having their futures so jeopardized. Young people need to see that adults are concerned about the danger of nuclear weapons and are working with them in taking meaningful action. Facing the issue is one way of showing this.

Autonomy and authority. For those high school students who already feel adult, the phrase "Day of Dialogue" is particularly appropriate. Many adolescents reject all opinions that come from an authority figure. Therefore, the tone of all our activities should be that we are not presuming to know all the answers about nuclear war and the arms race, but rather that we are attempting, through discussions, to find out our students' real concerns. Some activities are designed to give students the necessary skills and information to make their own decisions and thereby empower themselves. We want to be careful not to preach our own viewpoints, or to be too biased in our presentations. We don't want students to see the day as a piece of propaganda; we want them to think critically about the issue, and with adults, to begin to form responsible opinions and make decisions. Talking about nuclear weapons and their dangers offers us a good opportunity to explore a problem with students on a more equal basis. We are all vulnerable and concerned. We are not "authorities" who have "the answer"; adults and adolescents can be genuinely equal in their dialogue about the nuclear issue.

One good way to respect students' need for autonomy is to have them plan the activities for the Day of Dialogue. The "Starting Points" section that follows suggests several ways for students to begin talking with each other about their thoughts and fears concerning the arms race and the threat of nuclear war. Completing activities like these either on or before the Day of Dialogue provides a way for students to talk with each other about the issue, and to become interested in helping to plan ways for continuing the discussion in their school and in the community.

2. Starting Points

Before giving any information, and before any extended dialogue on the issue of nuclear war, it will be useful for you to find out what your students are already thinking and feeling about the arms race. This is true whether you are working with junior or senior high school students, and the activities in this section will give you an opportunity to do just that.

a. Twenty Years Hence: October 25, 2002.

A good exercise to begin with is to ask students to think about their futures in very specific ways. This can be done through writing, simple listing on the board, discussion, and art projects. Below are some suggested activities that can help you answer the questions: What fears do my students have? What are their assumptions about the future? Are they aware of and worried about nuclear threats? The answers to these questions will be useful as you plan other activities for your Day of Dialogue, or as a follow-up to it.

1. Have students design and write a front page of a newspaper for the year 2002.

2. Have students write a story in which they are the main character. The story should take place 20 years from now, and should include specific references to what their lives are like.

3. Ask students to list four things about October, 2002.
   -what they think will have happened to them personally.
   -what will have happened in the world?
   -what do they fear will happen in the world or to them?
   -what would they like to have happen in the world?

4. Ask students to write or discuss five things they would like to change about the world right now.

5. Have students draw a picture of what they think the future will look like, and a picture of how they would like it to be. Discuss any differences between how they think the future might be with how they would like it to be.

b. *Twenty Years Ago: October 1962.*

It may be easier for students to express their own fears if they can talk with people who experienced similar fears when they were about the same age as your students. The following exercise about the Cuban Missile Crisis in October of 1962 can help to raise some of your students' own concerns. This exercise also provides an opportunity for students and parents to begin a dialogue about the nuclear arms issue.

Tell students that they are historians. They are to put together a report about important world events that were taking place in October of 1962. What was life like for people in the United States at that time? You can give students specific dates if you want (it might, for instance, be easier to look at newspapers only between the 14th and 28th of October, 1962), but don't tell them at this time what happened on those dates. Brainstorm with them about information sources:

-interviews with people who lived then, their parent(s), or an adult who was the student's age at the time.
-microfilm of old newspapers from the library.
-old magazines.
-history books.
-teachers and school administrators.

Help students along the way to assume the role of reporters, researchers, and writers -- particularly if they have never done oral interviews or used old newspapers and magazines as resources.

Discuss students' findings. If the issue of fear came up in their research, ask students if they have ever experienced this type of fear. How are the students dealing with their fears? How did the adults they talked to deal with their fears (then and now)? What can people do to help them with their fears?

c. *The Russians Are Coming*

Many students associate the Soviets with their fears of nuclear war; activities in which they have a chance to talk about their perceptions of the Soviets can help elicit student concerns for further discussion. These activities also give you a chance to talk about the differences between fears based on stereotypes and misinformation versus fears based on knowledge and reliable information. The following activities can help students begin to voice some of their concerns about the Soviets -- and about the threat of nuclear war.

1. Ask students to share the words and images that come to mind when they think of the Soviet Union or the Russian people. Write these on the board. Go over the list and ask students to identify where those images came from.

2. Repeat the activity. This time, ask students to share the words and images that come to mind when they think of professional athletes. Where do those images come from? Which do they think are stereotypes? Which are based on incomplete information?

3. Go back to the list of words about the Soviet Union and the Russian people. Which of those images are stereotypes? Which are based on incomplete or inaccurate information? How does one go about finding out the truth about the Soviet Union and its people? What do students think the Russian people believe about people in the United States? Where do the Russians get their information? How many of those images and perceptions do students think are based on wrong or incomplete information about Americans?

4. If students have a hard time coming up with images or perceptions of the Soviets on their own, you may want to print the following statements on separate sheets of paper and put them up around the room:

   --The Soviets are out to conquer the world.
   --The Soviets want peace as much as we do.
   --The Soviets are mainly interested in protecting their own borders and national security.
   --We should destroy the Soviets rather than allow Communism to exist.
   --The Soviets and Americans should divide up the world and each stay in its own territory.

Tell students to stand next to the statement they agree with most. Give students 5-10 minutes to discuss the reasons for their choices in their small groups, and ask a spokesperson in each group to take notes on the discussion. Come back together for a report on the small group discussions. Give the rest of the students time to react and respond to each other, and then continue with the activities above.*

5. Two good follow-up activities to the above exercise is to read "The Fate of Man" by Mikhail Sholokov (see the "Using Printed Materials", section 5, for an annotation of this short story). You and your students may also want to plan a unit on the culture of the Soviet people.

*This is an adaptation of an activity from the Jobs with Peace Social Studies Curriculum (page 16). See resource section at the end of the guide for address and phone number of the Jobs with Peace Education Task Force's office.

d. Sharing Fear

Another activity for initiating sharing in a group is a sentence completion exercise. Members of a group form pairs and move apart so that each pair has some privacy. The group leader reads each of several incomplete sentences, allowing a minute or two for response. On the first reading, one member of the group completes the sentence and the other listens -- no discussion should take place. On the second reading, the partners shift roles. After the two readings, the partners share reactions, and then report on the exchange to the whole group. The following are some sample incomplete sentences; you and your students may want to invent others:

1. One of my worst fears about the future is _____.
2. I think the chances of nuclear war are getting _____.
3. The feelings I carry around about all of this are _____.
4. When I try to talk about these feelings with other people, what usually happens is _____.
5. Sometimes, I avoid these feelings because _____.

e. Two Useful Tools: A Student Letter and a Questionnaire

Reproduced on the following pages are two materials that have already been successfully used in eliciting young people's feelings about the threat of nuclear war and in sensitizing them to the kinds of action they might take.

One is a letter addressed to students. It was written by a high school student who has been involved in the nuclear issue in her own school and community; it offers practical suggestions for how other students can get involved. Putting this letter in the hands of the right student in your class, and offering your support, can help get the Day of Dialogue off to a good cooperative start.

The second is a questionnaire, adapted from a longer one used by students on the Education Committee of the Newton North High School (Newton, Massachusetts) chapter of STOP. It was used in all English classes at the school. Your students can use the questionnaire either in preparation for the Day of Dialogue, in planning their activities, or on the Day of Dialogue itself.

Both the letter and the questionnaire mention the organization STOP, which is an acronym for Student-Teacher Organization to Prevent Nuclear War. STOP is a valuable resource for young people who, independently or with teacher support, want to become active in informing their communities about the dangers of the nuclear arms race. It is a nation-wide organization of individuals and chapters in high schools, both public and private, and in places of worship. STOP publishes a newsletter and other materials which describe activities and educational resources of special interest to high school students.

A particularly informative pamphlet students could send for is entitled "Nuclear War, Your Community, and You: Bringing the Issue Home." It includes useful steps and pointers for students who wish to improve their skills in communicating with the public.

Dear Student,

When Dr. Helen Caldicott spoke at my high school last year on the dangers of nuclear war, I went home and paced the kitchen floor trying to figure out what I could do, instantly, to help bring about a change. Of course, change doesn't come about instantly, and all I could do that afternoon was to call several local anti-nuclear organizations to discover whether they knew of any high school groups. But that was a start.

Although my ideas at that point were vague, I started to talk to other students who had the same reaction to Dr. Caldicott's presentation. From our discussions grew weekly meetings, a day-long, all-school teach-in, and a growing and active disarmament group at my high school.

I think we surprised ourselves with what we were able to accomplish; after all, we were just a bunch of kids -- how could we tell teachers what was important for them to teach? But once we got used to taking the initiative, we found that the teachers and administration of our high school were generally receptive to our plans. In fact, being a student group in some ways gave us more influence. Teachers were impressed that we felt strongly enough about disarmament to try to inform and involve others; even those who disagreed with us congratulated us on the success of the teach-in. Other students were less likely to view the issue as "another one of those boring things the teacher thinks we should know." Finally, while some teachers may feel uncomfortable taking a stand on a controversial issue, we did not have to worry about being objective.

On October 25, schools around the country will take part in a national Day of Dialogue about the nuclear arms race. If you are concerned about the issue, don't hesitate to involve yourself in planning activities for the day! Your teacher has received a packet of information and suggestions; you can use this as a first resource. You will need to find out what the teachers in your school are planning, but you don't need to limit yourself to their ideas; they will probably be glad to have your help or to see you do something on your own.

If you want to get in touch with other high school students, contact the Student/Teacher Organization to Prevent Nuclear War (STOP Nuclear War). They have chapters all over the country and are a useful resource for support and suggestions whether you want to start a chapter, lead a discussion, or just find out more about what high school students can do. They can be reached at:

STOP Nuclear War
Box 232
Northfield MA 01360
(413) 498-5311 ext. 264

The dangers of nuclear war are so immense that they often seem overwhelming, but even the smallest efforts to eliminate them can be the beginning of a larger influence. I am convinced we can all make a difference.

Debora Tessman

Student Questionnaire

1. Name (optional), age and sex of respondent _____.

2. List any ideas or images that come to you when you hear the word "nuclear."

3. How old were you when you were first aware of nuclear issues? What do you remember thinking? How is that different/the same from what you think now?

4. What do you know about civil defense? What do you think about civil defense?

5. Do you think that a nuclear war will occur in our lifetime?

6. Do you think that you could survive a nuclear attack on ___ our city? ___ our country? ___ the world?

7. Do you think the threat of nuclear war is becoming greater? ___ ___ remaining the same? ___ diminishing?

8. How has the threat of nuclear war affected your thinking about
   - the future?
   - the world?
   - time?
   - marriage?
   - having children?
   - other _____?

9. Which topics do you wish you knew more about?
   - Physics of nuclear weapons ( )
   - Human dimensions of nuclear war ( )
   - Soviet-American relations ( )
   - Economic effects of the arms race ( )
   - The nuclear arms race and arms control ( )
   - The effects of nuclear war ( )
   - Nuclear weapons and energy resources ( )
   - How adults are responding to the nuclear threat ( )
   - How students can respond to the nuclear threat ( )
   - Other _____ ( )
   - Other _____ ( )

Please share the data with Facing History and Ourselves Project, 25 Kennard Road, Brookline MA 02146

3. Teaching About Dialogue

We think that two of the most important skills you can teach in connection with the Day of Dialogue are how to engage in effective dialogue, and how to avoid the common behaviors that block dialogue. Effective use of dialogue requires not only the mastery of certain skills, but the building of a perspective that stresses cooperation in human activities. The exercises that follow introduce students to these skills and perspectives.

We believe that dialogue is the best means to achieve change throughout the spectrum of human interaction, and the best alternative we have to avoid violence on any scale. Dialogue is the best way for your students to deal with the fact that their parents won't trust them with the car; it is the best way for the U.S. and the U.S.S.R. to negotiate arms reduction; and it is best for every interaction in between. As you explore with your students how to engage in dialogue, teach them also about its universality, and about its relevance to the nuclear issue.

Many people think of international negotiation as a process one cannot understand without a degree from Georgetown or the Fletcher School of Diplomacy. Hence the quickness to trust the "experts." We believe that we can achieve a more democratic foreign policy by teaching the next generation of voters that negotiating arms control is like negotiating a contract between a company and a union, like working out a divorce settlement, like convincing the school to sell better lunches, like getting the car for Saturday night. Some goals are harder to reach than others, but all are attainable by using many of the same methods.

a. Blocks to Dialogue: 6 Exercises

The following exercises can show students how governments, newspapers, politicians and we ourselves use harsh or soft words that heat up or cool down a discussion. The choice of words is sometimes deliberate, sometimes unconscious. Students should be on the lookout for such words in their own lives, in articles and discussions about nucelar weapons, or about any other topic. They can usually spot the bias of the writer or speaker through these words. They can try to recognize and avoid using euphemisms and inflammatory words because they are so often impediments to dialogue.

Inflammatory words are used by both sides in the nuclear debate. They liven up the argument because they are vivid words. But they can also label and exaggerate, and make people angry. They do not enhance effective dialogue.

Statistics too can be used for communication, but they can also be misused. When they are distorted, statistics are a great obstacle to effective dialogue.

1. Hot Words and Cool Words

Part A: If you want to criticize, insult, or praise the following people's behaviors, what words would you choose? You may use slang.

Example: Wilma moves around when she talks, sits, reads, studies, etc.
Critical: "She's hyper."
Insulting: "She's schizzy, spazzed out, a twitch."
Praising: "She's active, energetic."

Now do these:

Behavior: Lee is five feet eight and weighs 100 pounds.
Critical: Lee's (a) _____.
Insulting: Lee's (a) _____.
Praising: Lee's (a) _____.

Behavior: Gene leaves clothes on the floor of the bedroom for weeks.
Critical: Gene's (a) _____.
Insulting: Gene's (a) _____.
Praising: Gene's (a) _____.

Behavior: Chris looks out the window during class and then doesn't know what's going on when the teacher asks a question.
Critical: Chris is (a) _____.
Insulting: Chris is (a) _____.
Praising: Chris is (a) _____.

Part B: Harsh words can be used to express anger, to hurt or upset people, to make them seem like just a member of a group instead of individuals, or to dehumanize them.

During World War II, the Japanese were insulted and slurred by being called _____.

During the 1950 anti-communist period, communists were insulted and slurred by being called _____.

During the Vietnam War, Vietnamese were insulted and slurred by being called _____.

In your school, groups of people are put down with what labels?

_____ _____ _____

Why do people in your school use the above labels?

_____

Part C: Inflammatory words can teach you to hate. Lt. William Calley was convicted of murder of at least 22 civilians in Mylai Village in Vietnam during the Vietnamese War (109 to 567 civilians were killed in all). Lt. Calley was sentenced to jail but freed on a Presidential Pardon. He explains here what the word "communism" meant to him.

> I went to school in the 1950s, and it was drilled into us from grammar school on. "Ain't" is bad, "aren't" is good. Communism's bad. Democracy's good.
>
> In all my years in the army, I was never taught the communists were human beings. We weren't in Mylai to kill human beings. We were there to kill ideology carried by -- I don't know -- pawns, blobs, pieces of flesh. I was there to destroy Communism. We never conceived of old people, men, women, children, babies.
>
> I'm different now. If Americans said "Go to Mylai, kill everyone there," I would refuse to; I'd say, "It's illegal, and I can't be part of it."
>
> (Source: Lieutenant Calley: His own Story as told to John Sack. Viking, N.Y., 1971)

Part D: During the Vietnam War, euphemisms were used to blur realities that might upset or anger people. Match the following euphemisms with the realities:

1. pacification centers	_____	a. bombing
2. protective reaction strikes	_____	b. retreat
3. redeployment of American troops	_____	c. burning of forests and farms
4. resources control program	_____	d. civilian detention camps

Part E: Euphemisms were used during the Watergate period which resulted in the resignation of President Nixon and the criminal conviction of several governmental figures. People used euphemisms to avoid admitting they did anything criminal. Match the euphemisms to the realities:

1. inappropriate act	_____	a. illegal wire tapping
2. electronic surveillance	_____	b. a lie
3. containing the situation	_____	c. bribes
4. increments in the form of currency	_____	d. an illegal act
5. statement no longer operative	_____	e. cover up

Answers to Euphemisms:
Exercise D: 1.d, 2.a, 3.b, 4.c
Exercise E: 1.d, 2.a, 3.e, 4.c, 5.b

2. Inflammatory Words in the Nuclear Arms Debate

Part A: Half these words describe people who support increasing nuclear weapons for national security and half describe those who support decreasing nuclear weapons for national security. What is the effect of these words?

alarmist	Nazis	right winger
militarist	emotionalist	trigger happy
idealist	anti-American	soft on communism
dove	Fascist	military-industrial complex
hawk	utopian	reactionary
warmonger	peacenik	diehard liberal

Group the words under each of the headings: people supporting increase; people supporting decrease. Use the dictionary if you need to.

Part B: These words don't label PEOPLE but they are vivid images of aspects of the nuclear arms issue. What does each mean and how might it be an exaggeration?

Phrase	Meaning of Phrase	What might be exaggerated?
1. Holocaust		
2. Window of Vulnerability		
3. Domino Theory		
4. Extinction of the Species		
5. Doomsday Clock		
6. Free World		
7. Missile Gap		
8. Armaggedon		

Part C: The automobile industry chooses words like "cougar" to name its cars, because such words suggest speed, a touch of danger, or excitement. Use a dictionary to look up each of these names for US missiles. What does each word mean? What does each meaning suggest? Then make a generalization about why you think these words were chosen to be the names of missiles.

Name of Missile	Dictionary Meaning	Suggested Meaning
1. Pershing		
2. Lance		
3. Titan		
4. Minuteman		
5. Cruise		
6. Trident		
7. Stealth		
8. Polaris		

Generalization about why these words were chosen as names of missiles:

Part D: These words are used by government officials to describe some aspects of the U.S. nuclear arms strategy. What does each phrase suggest to you? What is the more direct and simple way to say the same thing? Why do you think these words are used instead of the simpler ones? Are they euphemisms?

Words	Suggested Meaning	Most Direct Way To Say It
1. nuclear device		
2. soft target		
3. nuclear event		
4. pre-emptive strike		
5. European theater		
6. nuclear deterrence capability		
7. nuclear exchange		
8. limited nuclear war		

BEST COPY AVAILABLE

Trying to not say what they mean

Boston
Globe
Fall
1981

By Frank Greve
Knight-Ridder Service

WASHINGTON – On their way out at the Environmental Protection Agency are such words as "hazard."

By overuse it has become "a trigger word that excites the American public needlessly," according to John Hernandez, the EPA's second-in-command. Many industries agree, saying that the EPA has placed alarmist labels on pollutants in the past and then used the public concern, aroused about these pollutants, to justify extravagant regulation.

So Hernandez wants aides to "talk about degree of mitigation of risk instead of 'degree of hazard'" and he has changed the name of the Office of Hazardous Emergency Response to the Office of Emergency and Remedial Response.

Another alarming word is "cancer-causing." To avoid its ominous ring, the EPA public affairs office decided recently not to publicize new agency findings that certain wood preservatives might cause cancer. And EPA releases no longer identify toxic chemicals that have been found to cause genetic abnormalities or birth defects.

"It might scare too many people," explained one press aide. "Health hazards aren't going to be mentioned."

Hernandez put it this way: "The average citizen is going to hear that his life is threatened by some chemical many fewer times. But when there is a serious problem, we certainly will ring the bell."

When it is rung, don't expect EPA "enforcement personnel" to answer. There's a move afoot to call them "compliance assistance officers" instead.

To date, the most extreme case of antialarmist semantics involved a Los Angeles area chemical dump that, according to a draft press release, had "exploded and burned." Indeed it had, sending 700 pound drums hundreds of feet into the air.

But when the draft came back from EPA Administrator Anne M. Gorsuch's office, the word "exploded" had been deleted. So had the names, descriptions and possible adverse health effects of the chemicals involved.

Japan's Texts Revise WWII

Washington
Post
7/28/82

'Invasion' Becomes 'Advance;' Asians Become Irate

By Tracy Dahlby
Washington Post Foreign Service

TOKYO, July 27—School authorities here have revised textbook accounts of World War II, churning up a storm of protest and indignation among closest Asian neighbors of Japan—who accuse it of attempting to cover up the country's aggressive military past.

The controversy arose when Japan's Education Ministry recently disclosed changes in new books for the fall school term which, for example, replace the word "invasion" with the apparently more neutral "advance" to describe the Japanese Imperial Army's attacks in China in the 1930s and in Southeast Asia and the Pacific in the 1940s.

The governments of China and South and North Korea have charged that the revisions involved sweep aside facts crucial to accurate historical interpretation.

Officials of the Education Ministry, contending the changes were made in the interests of "objectivity," have denied any attempts at censorship.

The Chinese appear to have been outraged by the textbook description of the Japanese invasion of China as an "advance" and the suggestion that the "rape of Nanking" in 1937 may have been provoked because Japanese soldiers were angered by the losses they suffered—at the hands of a relatively small number of poorly trained and equipped Chinese resistance fighters, according to contemporary accounts.

Prior to the recent revision, one textbook version of the incident read: "At the time of the occupation of Nanking, Japanese forces killed and assaulted many Chinese soldiers and civilians and plundered and set fires. Japan was internationally criticized for the rape of Nanking. It is said that the number of Chinese victims totaled 200,000."

The new version reportedly reads: "In the midst of the confusion of the occupation of Nanking, Japanese forces killed many Chinese soldiers and civilians. Japan was internationally criticized for the rape of Nanking."

The textbook revisions have stirred up strong protests from teachers' organizations and pacifist groups in Japan. Kosi Honda, an educator who heads a large organization of history teachers, says most Japanese today grow up largely ignorant of World War II or learn a version of it from increasingly popular war movies here that provide a flawed perception.

"The reason Japanese young people went to the last war is because they were told it was a "just" war. They were not told the truth and 3 million Japanese were killed," Honda said. "If we don't use the word 'invasion,' you tell me what we should call it."

More Euphemisms

Directions:
Read each article and underline the controversial wording in each.

Do you think any of the controversial wordings are "euphemisms", or do you think they are accurate and direct descriptions of the real situation?

4. Seeing Through Statistics

Don't believe everything you read just because it uses numbers; numbers can lie just like words can lie. In each example, consider what other information you need to understand the statement.

1. A teacher tells a class what a bad job they did on a test where the average score was only 69. Why might the average be unfair grounds for criticizing the class?

   Your explanation_____

2. More people were killed in airplanes last year than were killed in airplanes in 1910. Was it safer to fly in 1910?

   Your explanation_____

3. Boston MA and Berkeley CA have the same average temperature. Does this mean that if you visit Berkeley from Boston you can take along the same clothes you usually wear at home?

   Your explanation_____

4. The number of reported rapes in the U.S. is very high compared to a few years ago. Therefore, the problem clearly is getting worse and none of the steps that have been taken against rape have worked (right or wrong).

   Your explanation_____

5. A Boston politician said "The silent majority is against busing for integration." Her proof was a questionnaire sent out to 200,000 people. Eighty percent of the 23,000 people who responded wrote that they were against busing for integration.

   Is her statement backed up by her proof?

   Your explanation_____

6. In 1941 the U.S. had not yet entered the war against Germany and Italy (World War II). A poll asked Americans if they favored the U.S. entering the war against Germany and Italy, and 29% said they favored American entry. A similar sample was asked the same question but also given several other alternative actions to choose from, such as the U.S. supplying our ally (Britain) with war material. Only 6% favored entering the war against Germany and Italy this time.

   How do you explain the difference? What is the people's true opinion?

   Your explanation_____

7. President Reagan announced that his administration had appointed 314 women to high-ranking federal positions, compared to only 289 by President Carter. But the National Women's Political Caucus disputed his claim, pointing to Reagan's 52 Cabinet-level or sub-Cabinet level women appointees compared to Carter's 65. What is the significant difference in the two sets of numbers?

Your explanation_____

5. Examining Statistics About Nuclear Weapons

Ask your students to examine this chart carefully:

A comparison Between U.S. and U.S.S.R. Strategic Nuclear Weapons*

Type of Weapon	USA	USSR
Strategic nuclear launchers:		
LAND-BASED MISSILES -- ICBM	1,054	1,398
SEA-BASED MISSILES -- SUBMARINES	624	943
AIRCRAFT -- LONG-RANGE BOMBERS	348	156
	2,026 total	2,497 total
Strategic nuclear warheads:		
IN LAND-BASED MISSILES	2,154	5,504
IN SEA-BASED MISSILES	4,960	1,263
IN AIRCRAFT	2,412	156
	9,526 total	6,923 total

Total number of nuclear weapons in the world -- close to 50,000 (short, medium, and long-range)
Total strength of those weapons -- 1,000,000 Hiroshima bombs
Nuclear weapons per capita in the world -- equivalent of 3 tons of TNT per person
Amount being spent on the arms race -- 1 million dollars per minute

*Union of Concerned Scientists

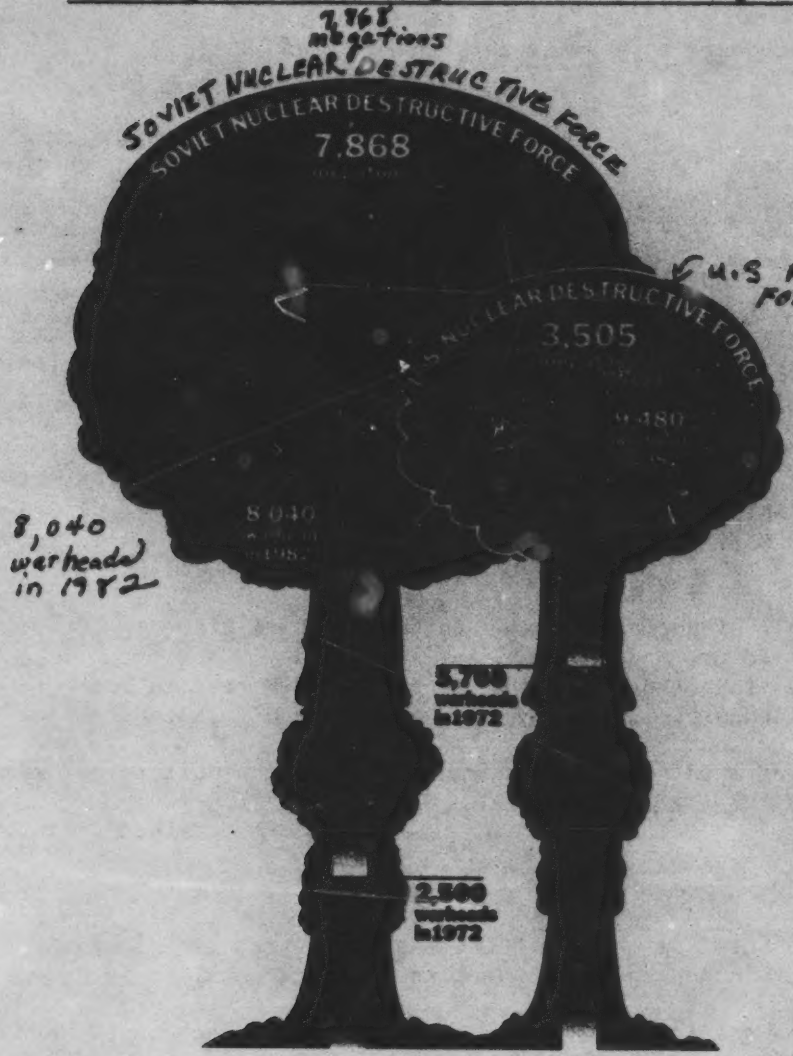
1. Figure out from the chart who has more strategic (long-range) nuclear launchers. Who has more strategic nuclear warheads?

2. What is the relative strength of land-based, sea-based, and air-based weaponry of each side?

3. What statistics would
   - -the Pentagon use to say the U.S. was in an inferior position?
   - -the Kremlin use to prove the U.S.S.R. was in an inferior position?
   - -the Swiss use to say both sides had achieved parity (a balance of weapons that makes them essentially equal)?
   - -the UN use to suggest that "enough is enough"?

4. What other statistics might be important to consider when discussing parity between the U.S. and the U.S.S.R.? Students could research this question. The chart does not include short and medium-range nuclear weapons. Nor does it take account of the megatonnage (explosive power) of warheads (U.S.S.R.'s warheads yield more than twice as much megatonnage as U.S.'s warheads). Additional considerations: the accuracy of missiles (U.S.'s are more accurate), the vulnerability of missiles to attack (about 50% of the U.S.'s submarines are invulnerable), the distance missiles must travel to reach their target (missiles from U.S. to U.S.S.R. or vice versa must cross over much mileage which can affect accuracy).

6. Examining Statistical Graphs About Nuclear Weapons



Time Magazine 3/29/82

To the teacher: have your students interpret the meaning of these two graphs. After they have drawn their conclusions, point out to them:

- -The mushroom cloud graph shows megatonnage (explosive force)
- -The stem-shaped graph shows the number of US/USSR nuclear warheads
- -The cloud graph, taller and wider, looks more significant.

However, number of warheads MAY be more significant:

"Our firepower does not depend on a large blast far away from the target. Our greater technical skill has enabled us to build smaller, more efficient missiles and smaller, more accurate warheads."

(Source: Freeze! by Senators Kennedy and Hatfield)

ANSWER SHEETS

Exercise 2.A:

Put-downs of people in favor of nuclear arms	Put-downs of people opposed to nuclear arms
1. militarist	1. alarmist
2. hawk	2. idealist
3. warmonger	3. dove
4. right winger	4. emotionalist
5. Fascist	5. anti-American
6. trigger-happy	6. utopian
7. military-industrial complex	7. peacenik
8. reactionary	8. soft on communism
9. Nazis	9. diehard liberal

Exercise 2.B:

1. Holocaust means the complete destruction of people by fire, often referring to the Nazi mass murder of Jews and others in World War II. A nuclear war, however, might not destroy ALL people in an area as the term seems to imply.

2. Window of Vulnerability refers to a gap between the number of U.S. and U.S.S.R. arms, implying that is large enough for the U.S.S.R. to attack us while we are helpless. The differences in our arms supply, however, might balance out in the end, so that there is no "gap".

3. The Domino Theory refers to the idea that if one country "falls" to the Communists, the momentum of its falling will cause nearby countries to "fall" to communism after it. Since each country is different, however, it might be the economic, political, and social conditions that determine whether a country will become communist, not just the example of a neighboring country going communist.

4. Extinction of the Species refers to the theory that multiple detonations in a nuclear war could destroy the ozone layer which could make the earth uninhabitable for human beings and perhaps even all animals and plants. This possibility, however, is theoretical and the effect of nuclear blasts on the ozone may be minor.

5. Doomsday Clock is a symbolic image to show how close we are to inevitable nuclear war. Doomsday means the final Judgment Day in the Christian religion. Depending upon international tensions, dangerous arms advances, and threat possibilities, the clock has been set at four or eight "minutes to midnight". Nuclear war may not be inevitable, however, if present safeguards and the strategy of "deterrence" are effective.

6. Free World is used to describe non-communist governments. Not all non-communist governments allow freedoms Americans consider essential, such as the freedom to vote, have a jury trial, or speak out freely; nor do communist governments prohibit all such freedoms.

7. Missile Gap implies a "hole" in our "armor" of weapons in the same way that "window of vulnerability" does.

8. Armaggedon refers to the last decisive battle between good and evil just before the Judgment Day, according to the Christian Bible. A nuclear war may not be extensive enough to be compared to a final judgment day, however.

Exercise 2.C:

1. Nuclear device suggests a machine, a gadget.
   Direct meaning is nuclear bomb.

2. Soft target sounds gentle, harmless.
   Direct meaning is non-military targets, especially cities.

3. Nuclear event sounds like an ordinary event.
   Direct meaning is a bomb blast.

4. Pre-emptive strike sounds preventative, defensive.
   Direct meaning is a first strike made under the assumption the other side is planning to strike you.

5. European theater sounds like a play, a game.
   Direct meaning is Europe as a battleground.

6. Nuclear deterrence capability sounds like the ability to prevent a nuclear war.
   Direct meaning is ability to wage a war designed to make your enemy too afraid to attack you.

7. Nuclear Exchange sounds like a friendly trade.
   Direct meaning is two nations dropping bombs on each other.

8. Limited Nuclear War sounds like a minor, controlled war.
   This phrase ignores the tremendous destruction involved in ANY nuclear war.

Possible Generalization: These words are euphemisms used to distance the reality of nuclear war, and to blur the actual dangers.

Possible answers to Seeing Through Statistics (exercise #4)

1. Most students got relatively good marks, but since an average balances out high and low numbers, the average came out low. NO ONE got 69. Test scores might have been 100, 100, 100, 95, 90, 90, 85, 80, 80, 65, 60, 55, 40 0, 0 (The two zeroes were given to students who forgot their pencils and were not allowed to take the test.).

2. No. Only a few planes flew back then compared to millions now. So a few deaths back then was still a dangerously high percentage of those flying.

3. No. Boston has extremes of temperatures in winter and summer. Berkeley temperature stays in the middle range pretty much all year round.

4. It could be that more women are reporting rapes now than dared to a few years ago.

5. Only approximately 10% of the people who were sent surveys returned them. The real silent majority is those who didn't send anything back. People knew the politician was against busing and may have refused to respond if they were for it.

6. Give people the full range of possible choices on entry into war (or on nuclear arms use) and they will make more precise and subtle decisions.

7. The larger numbers represent many jobs that were part-time boards and commissions, some of which meet only one or twice a year.

b. *Engaging in Effective Dialogue*

Important principles underly effective communication and negotiation, as Roger Fisher points out in his book Getting to Yes. He makes it clear that these principles apply to disagreements between friends, family members, tenants and landlords, bosses and workers, partners, factions, and nations. The following are among the principles he stresses:

* When arguing or negotiating, don't get locked into positions -- a statement of what you are willing or unwilling to accept or do. Arguing over positions tends to make both parties act defensive and lock themselves into their positions (in order to 'win", 'be right', convince the other person, 'save face').

* Positions usually develop from underlying feelings, concerns, needs, hopes, fears. Share your concerns, discover the other person's concerns, and discuss ways to resolve differences or conflicts.

* Enter the discussion with the idea of working together to resolve differences; don't set up an adversary (us against you) relationship where each side becomes so defensive that neither pays attention to the other's legitimate interests.

* Focus on how the issue affects you; not on what the other person does or on your judgment of him/her. ("I feel as if my opinions don't count" instead of "You never listen to students' opinions... You're insensitive".)

* Don't assume that you know what the other person thinks or intends to do. Try to see the situation as the other person sees it, feels it.

* Don't have your solution figured out in advance; be open to working out the solution with the other person. Allow him/her to participate in the process. Also, don't assume that there is one best answer to the problem. Create/be open to several possible solutions before considering/deciding upon solutions.

* When interests conflict, resolution should be based on some fair, objective standard (such as precedent, moral or legal standards, equal treatment).

1. Choosing Strategies

The following exercise illustrates for students the point that what you say, and how you say it, often determines how other people react to you, and how effective you are in getting your message across.

Part A: Choose eight students from the class to take part in the role play with you. Ask the others to listen carefully to what you say to each student in the role play, and to make a note about how each student responds.

Explain that you are playing the role of a parent, and each of the students will take a turn playing your son or daughter. This is the situation: It is early evening, half an hour after dinner. It is the student in the role play's turn to do the dishes tonight. He or she has decided to rest a bit and watch some evening news on TV. before beginning the dishes.

Acting as the parent, you walk into the room and let the "child" know that you want the dishes done right away. Use one of the following "strategies" to communicate your message:

1. Name-calling, labeling, insulting: "You are ungrateful and lazy! Everyone does a fair share of work around here but you."

2. Mind-reading, telling the person what his or her motivations are: "You think that by waiting, someone else will do your dishes for you...You're just purposely trying to aggravate me...You know I want the dishes done, and you just want to get me angry."

3. Exaggerating, and using emotionally-charged words: "I can never trust you to do anything you're supposed to do...You think you're better than everyone else; you always try to get out of your responsibilities."

4. Playing the victim, making the other person feel guilty: "I had a hard day at work, and I'm really tired." (sigh). "I guess I'll go in and get those dishes done so they're off my mind, even though it's really your chore."

5. Phony issue, talking about everything but the issue at hand: "Look at you, just sitting around. No wonder your grades are so low this term! Another thing, I want those clean clothes of yours put away. And if you're awake late tonight, I don't want to have to listen to your stereo again like last night!"

6. Rhetorical question, often in combination with exaggeration or mind-reading: "You just want me or somebody else to do your dishes for you, don't you? You think that by sitting there, someone else will do your chores for you, right?"

7. Silent treatment, snubbing: Walk around the room, sigh, glare, etc. -- but don't say a word. Give the student the cold shoulder.

8. Assertive, saying what you think without laying any trips on anyone else: "I want you to do the dishes now. It's your turn tonight and we all agreed that we'd do them right after dinner when it's our turn."

Discuss with the whole class the strategies used, their relative effectiveness, and students' reactions. Which were fair, which unfair?

Part B: The second part of the exercise is to assign role cards to each student. Each card should have one of the eight strategies listed on it. Assign the same strategy card to two or three students, if everyone wants to participate, or use the "fishbowl" technique, in which some students act as observers, carefully recording what happens, and later reporting on their observations. Tell students that you are about to give a homework assignment to them, and they are to communicate to you -- using the strategy listed on their card -- that they think the assignment is unfair. Give students a chance to think a bit about their strategies, and to talk among themselves or ask questions. Then give the most complicated homework assignment you can devise. Use unfamiliar vocabulary words, make the explanation long and complex, describe what you want them to do in a round-about way.

Make a note of student responses and reactions, and lead a discussion about the exercise. Who communicated feelings and displeasure effectively? How? What strategy was each person using?

2. Conflict Situations in Everyday Life

Asking students to analyze the conflict situations they come into contact with every day is a good way to spark a discussion about how they -- and the people around them -- negotiate resolutions to conflict. Take the opportunity to define and clarify concepts (e.g., winner, loser, resolution, escalation, cause, truce). Discuss similarities between personal and international conflict situations. Listen to the language your students use to describe conflict situations and resolutions, and help them to think about it critically. Finally, spend time examining the process used to reach a resolution in each situation, and apply the Roger Fisher principles where appropriate (see page

1. Ask students to recall a conflict which they witnessed or were part of. Then ask them to think about and discuss the following questions:

   --What was the cause of the conflict?
   --Why did it escalate?
   --How did it escalate?
   --What other choices could have been made to resolve the conflict?
   --What would have been the consequences?
   --What made this conflict a negative or positive experience?

2. Have students spend time observing a class of younger students. Then ask them to think about and discuss the following questions:

   --What kinds of conflicts did you see?
   --How were these conflicts similar to or different from the conflicts in your own life?
   --How were the resolutions to the conflicts you observed different from or the same as resolutions you would have chosen?

3. Have students interview each other about conflict experiences. As preparation, brainstorm with them possible questions they can ask each other:

   --What do you argue or fight about most often?
   --With whom do you argue or fight most often?
   --How do most of your fights or arguments start? How do they end most often?
   --Do you fight more often with people of your own sex or the opposite sex? Why do you think this is so?
   --How have your conflict situations changed as you have gotten older?
   --Are there ways of fighting or arguing so that no one (including yourself) gets hurt in the end?

4. Have students write about a conflict they have had, describing it from the <u>other</u> person's point of view. This exercise works best when it is written in the first person.

3. Arguing vs. Discussing Controversial Subjects

1) Ask your students: what is the difference between an argument and a discussion? Write their ideas on the board. Give them hints: what about tone of voice, body language, choice of words? These are points they may bring out:

Arguments	Discussion
Loud, angry, harsh tone of voice	Quiet, calm, even tone of voice
Interrupting	Letting the other person finish a point before you start to speak.
Changing the subject	Sticking to each point until you've worked through it.
Insults, put-downs, sarcasms	Treating the other person with respect and friendliness.
Exaggeration (terrible, evil, never, everybody, always)	Using careful, exact words.
Pushy or threatening body language	Using calm face and hand motions
Talking fast, rushing	Taking time
Thinking only of your next point instead of listening to the other person's idea	Listening carefully and seriously considering the other's views.
Faking it if you don't know something, never admitting the other person has a good point	Saying "I don't know" if you don't. Agreeing with the other person's good points.
The goal is to win	The goal is to find the truth.

2) Put the following practice topics on the board. Ask for two volunteers to argue/discuss one of the topics they disagree on in front of the class.

Topic ideas: handguns should be outlawed.

the driving age should be raised.

the death penalty should be instituted/abolished in this state.

3) Ask the rest of the class to take notes on the different ways the volunteers act when they are arguing compared to discussing, including whether they slip into argument when they are supposed to be discussing.

4) Tell the volunteers to start arguing their topic. After about a minute, call out "Now switch to a discussion." After a minute or two say, "Now argue again." Then "Now discuss."

5) Have the class tell the volunteers how they acted when arguing and discussing and if they "broke the rules." Ask the volunteers which they enjoyed more, arguing or discussing, and which they got more out of. They will probably have enjoyed arguing more ("it's more exciting") but will admit they get more out of discussing.

4. Negotiating Change

Have students choose a school issue they feel strongly about. Encourage them to choose one they might realistically negotiate with a reasonable chance of success. (Examples: setting up a student lounge, bringing a controversial speaker into the school, getting a rule changed, etc.) Help them consider the following questions:

1. Why is this issue important to you? How does it affect you and others?

2. Who else feels strongly about this? How will you reach and involve these people?

3. Who is the key person/people you need to speak to: who has the power to make or influence final decisions?

4. How do you make yourself heard? How do you reach these people?

5. How do you effectively negotiate with these people?

6. What possible actions might you choose? What are the possible consequences of each action? Are you willing to accept these consequences?

Arrange a role play in which students practice negotiating with the key people they identified. Discuss the results of the role play in the context of what your students have learned about effective dialogue and obstacles to dialogue.

Next, encourage a group of students to engage in the real thing, and help them set up their first appointment. Insist that the group keep the rest of the class informed on each step of their negotiation process. Be prepared to help them deal with the disappointment of loss -- if it comes to that -- though persistent negotiation, thoughtfully managed, rarely leads to total loss.

After students have had this kind of direct experience of negotiation, lead a class discussion that starts with this question: How does what we have learned about dialogue and negotiation relate to the nuclear arms question?

Actions Students Have Taken

1. A group of students decided to get the racial graffiti taken off a bank wall in town. After repeated phone calls, they wrote to local newspapers, and had circulated petitions to townspeople saying that the bank should assume responsibility for the graffiti. After three months of activity, including trying to paint over the graffiti, the students met with the bank president and had the meeting covered by a local newspaper (Brookline MA). The bank cleared off the graffiti within 48 hours.

2. A class took the following action to get the doors put back on the stalls in the girls' bathroom:

   a. Presented their case to the principal.

   b. Found out the costs of new doors.

   c. Informed the students about why doors were missing.

   d. Had students sign a statement saying they would not destroy or deface new doors.

   e. Applied to the Student Council.

   f. Had parents write letters.

Within six months new doors were put on.

3. A group of 8th graders decided to hold a Young People's arch to protest nuclear weapons. They:

   a. Wrote letters to the town for a permit.

   b. Met after school hours.

   c. Organized committees.

   d. Involved parents.

   e. Were interviewed by local TV, radio and newspapers.

They never had the march. They never got a permit. But they:

   1. Learned how to get involved.

   2. Made thousands of people aware of their feelings, fears, concerns.

   3. Involved hundreds of students.

4. Talked with parents/teachers about nuclear weapons.

5. Learned the process of getting something done.

6. Got support so they did not feel that they had failed.

5. Win-Win Games

Effective use of dialogue means being able to develop a perspective that considers the possibility of cooperation in human activities. The "Win-Win" games described here can lead to discussions about winning, losing, cooperation, competition, and adversarial relationships.

The idea of "win-win" games is that everybody wins. In the two games detailed here, the students do not know from the beginning that the games are cooperative; they simply play them in the way they choose to interpret the rules. Most will assume the game is competitive and this leads to follow-up discussion about the nearly automatic assumption that in any game situation, there are adversaries; the way to win is to make the other person lose. In each case there are important parallels for "games played at all levels, from personal to international.

These games, Chocolate Kisses and Tug of Peace, are simple to set up, can be played in one class period, and demonstrate that cooperation is actually physically easier than competition and -- in these cases at least -- produces immediate abundant rewards in the form of chocolate kisses or prizes.

a. The kisses game:

The point, which students should not be told, is that it is not against the rules to allow their hands to touch the desk without resistance nor for both partners to win kisses.

Setting Up:

You'll need a couple of bags of Hershey's kisses, other small candies, grapes or raisins. Tell the students the game will involve sitting across the table from a partner, left arm resting in lap, right elbow on the table, arm up. Ask them to clasp their partner's right hand! (Avoid using the term "arm wrestling" as it connotes competition: simply describe the position. If students mention arm wrestling, say that the position is the same, but the game is different.)

Make sure the students are set up in the proper position before giving them the rules, and allow no talking once you have explained them.

The rules:

1. No talking.

2. You will receive one chocolate kiss for each time the back of your partner's hand touches the desk.

3. Keep track of your own "kisses."

Say "begin" and allow them 30 seconds to play.

Follow-up:

1. Before the "win-win" concept is explained, ask students to describe in detail how they played the game. Ask them to write their reactions and method of playing ("This was stupid." "I didn't really try." "I had a weaker person for a partner." "I tried my hardest." "I always lose." "I tried part of the time and then gave up."). Students might ask themselves if the way they behaved in this game reflects the way they behave in other situations. What parallels do they see? These observations can also be written privately and time given for volunteers to share insights.

2. Still before explaining the concept of "win-win", you might communicate the concept non-verbally by choosing a partner, assuming the arm-wrestling position, and offering no resistance. Frequently students will continue to offer resistance themselves and will force your arm down over and over without letting their own fall. Eventually someone usually realizes that he or she does not lose any kisses by allowing you to win some...and it's much easier.

3. Go over the rules and explain the way in which both partners can win kisses through cooperation. Ask students to notice the language of the rules, especially the use of the word "partner." Why did people assume it was a game of competition?

4. If you demonstrated the "win-win" idea non-verbally, ask students to describe the process and their reactions. (Were you frustrated? Did you feel foolish?) What did you have to do in order to communicate the process? (give in, lose, look foolish) What did you stand to gain? (more kisses?) What did you stand to lose (face? a few kisses, perhaps?) Use this language to relate to other "game"situations in their own personal relationships, in families, with friends, and then on a larger, even international scale.

5. See general win-win follow-up discussion tips at the end of this section.

b. Tug of Peace

Setting Up:

The point, which students should not be told in advance, is that it is not against the rules to allow themselves to be pulled over the line, nor for both sides to win prizes.

Divide the class into two groups.

Draw a line in the middle of the floor.

Set up the groups as in Tug of War. (Again, avoid using the term "tug of war" since it implies adversaries.)

Get the groups into position before reading the rest of the rules, and allow no talking after they're set up.

The rules:

1. There is no talking during the game.

2. Every person on each line must hold the rope.

3. Each time the first person at the front of one of the lines goes over the line drawn on the floor, the other line receives a prize. (Create a prize; points are one option; actual class participation points for the class on that day would be a real reward.)

Say "begin" and time them; allow a couple of minutes.

Follow-Up: (see Kisses follow-up)

1. Again, have students describe and think about the way they played the game and their reactions to it. In this case, they should also consider their role in the group.

2. In this game the language is still important. Why do we hear competition in the word "line"? How does competition automatically develop when there are two groups?

3. As before in the Kisses game, once the students have listened to the language of the rules and discussed the reasons for having competition, the metaphor of the game can be extended to other life situations.

General follow-up for all win-win games:

1. Is there a place for "win-win" in the world? Some students think it takes the fun out of playing. What is the "fun" that is missing? Is it possible to redefine "fun"? What is really meant by "fun"?

2. Why do we hear adversary language when there are two groups or two individuals? What leads us to see others as natural adversaries? Consider in each game, how neutral parties, even friends, become adversaries.

3. Why does the language of competitive games spill over into the rest of our lives? Does it reflect basic human nature? Can that be changed or evolve? Does life reflect games or vice versa? Are there other cultures that place less emphasis on competition?

4. Using Community Resources

As you begin to think about how to introduce education about nuclear arms and related issues into your curriculum, it will be useful to utilize resource people who are already at work in your community. Bringing in speakers from the community into your classroom serves three purposes: it makes the day "special," providing students with an environment that may prompt them to think in new ways; it links students with adults in their community, thus making the day more truly a Day of Dialogue; and it allows you to explore and discuss the issue of nuclear war with your students, outside of your usual role as classroom teacher.

If you do decide to bring in an outside speaker to take part in the Day of Dialogue, you and your students will need to locate an appropriate speaker, clarify with the speaker the premises s/he will bring to the discussion, decide on a format for the visit, and design follow-up activities. Ask some interested students to work with you in identifying the speaker, making the initial phone calls, and drafting the letter of invitation. Have them choose someone from among themselves to act as the host. This student can meet the speaker on the day of the visit, learn enough about the person to introduce the speaker to the rest of the class, and open up the discussion with the first question to the speaker.

Bringing in a speaker will take at least three class periods -- one for preparation, one for the actual visit, and one for follow-up.

Locating an appropriate speaker

Any adult in your community who has given thought to the issue of nuclear war and related issues is a potential speaker. Several national organizations have been formed to study various aspects of the nuclear issue; many have local chapters that can be used as resources for locating speakers. The following community groups provide speakers with a range of opinions on the subject:

The local clergy. Many religious denominations, particularly the Society of Friends and the Catholic Bishops, have been active on the issue of nuclear war. If your local clergy cannot recommend one of their colleagues, they may know of parishoners who have been active in working on this issue.

The local medical community. Physicians for Social Responsibility, International Physicians for Prevention of Nuclear War, and the Nurses Alliance for the Prevention of Nuclear War (addresses are listed in the resource section) are all national organizations with local chapters. Contact members of the medical community in your area, or call one of these groups to find out if any of their members reside in your community. Many members of the medical professions have given serious thought to medical effects of nuclear war, so there may be medical people in your community who would be willing to share their thoughts with students, even if they are not members of an organized group.

Other groups. Other good resources include such national organizations as The Ground Zero Community Education Group, Student-Teacher Organization to Prevent Nuclear War (STOP), the Council for a Nuclear Weapons Freeze, and the American Friends Service Committee. Local nuclear education groups can be identified by using the phone book, talking to members of the community who are active in civic organizations, or by calling local political or educational groups: the League of Women Voters; the Sierra Club or the Audoubon Society. The Office of Civil Defense or the City Council can locate community leaders who have given thought to the issue.

A nearby college or university can also be a good source of speakers. Write the student government, the political science department, or any relevant student organization for suggestions. Ask whether the institution is affiliated with United Campuses to Prevent Nuclear War (UCAM) and if there is a local chapter on campus.

Science for the People, the Federation of American Scientists, and the Union of Concerned Scientists are three national organizations of scientists concerned about the issue of nuclear war.

If you live in an area with a high concentration of defense industries, you can find speakers to address the economic and job issues connected with the arms race. Contact local defense establishments, unions, military installations, or your chamber of commerce. Jobs with Peace, a national organization with local chapters in major urban centers, may also be able to put you in contact with local speakers.

Find your what position your local and state representatives, as well as your United States Senator and Representative, have taken on state or local "freeze" oetitions, or on the Freeze Proposal introduced by Senators Kennedy and Hatfield. If they do not have a local office, you can write to them in Washington, D.C.

Finally, be sure to contact your local press representatives. They are useful not only as possible speakers and resources for putting you in contact with other potential speakers, but as sources for providing local press coverage of the activities in your school.

If you plan on having more than one speaker, try to include several points of view. This will help your students to be better informed, and will lay the ground for dialogue.

Briefing the speaker: Be sure to clarify with any potential speakers the topics they feel comfortable raising, and the format the visits will take: a simple presentation with discussion and questions, a debate, panel discussion, or series of speakers over several days. Whatever format you choose, ask the speaker(s) to think of a few main points they wish to make, and to avoid elaborate presentations. Remember, you don't want this only to provide information, but also to begin a dialogue among all those participating. If the speaker suggests a film, ask to show it before the speaker comes, as preparation, or the day after, as a follow-up activity. Try to keep the actual day the speaker visits as much as you can a day of discussion and dialogue. If the speaker wants to use a short film in place of a beginning presentation, ask to preview it first, and use your best judgment. Finally, remind the speaker(s) of any time limitations, and assure them that students will be prepared with specific questions.

Preparing students. Preparing students for the visit is probably the most important step in the whole process of bringing community people into your classroom. Before the speaker arrives, ask them also to be ready with some specific questions and topics for discussion.

Choose one or two activities from this guide to do in order to stimulate student concerns and thoughts.

When helping students to formulate questions, point out that questions can be grouped into different categories: information, opinion, and questions that elicit a "story." The visit will be more interesting and informative for everyone if they take part in the discussion and ask questions. One way to encourage participation is to type up and distribute the list of student questions and concerns generated the day before. Remind students that "open-ended" questions (that is, questions which require more than a simple "yes" or "no" answer) elicit more interesting responses. Suggest also that they have a piece of paper in front of them on which to list "on the spot" questions that come to them in the course of the discussion. Finally, go over with students how tactfully to break into the answer of a long-winded speaker, and how to change the subject with a question on a new topic. (Be prepared to take responsibility yourself for making sure the speaker does not dominate the time with a lengthy presentation of facts and information, and let him or her know beforehand that you will indicate when the agreed-upon time is up and it is time for student input and questions.)

Designing follow-up activities. Be sure to leave time during the class following the visit to talk about some of the issues that came up. Possible discussion questions:

-What struck you most?

-What did you learn?

-What facts do you remember?

-What didn't you understand?

-What didn't you agree with?

-What stories do you particularly remember?

-What new questions do you have?

Encourage students to separate the speaker's personality from his or her ideas.

5. Using Printed Materials

This section includes annotations of newspaper and magazine articles, short stories and novels, and other printed materials we hope will be useful as you plan your Day of Dialogue. Many of the annotations also include ideas for how to use the articles, and many list accompanying questions. Try to obtain and read the articles yourself, and adapt them to your own particular needs. The materials annotated here can be used in a number of different subject area classes -- as readings to spark discussion of the issues, as a way to prepare for a speaker, or as a source of information for a research or other project. This is not a comprehensive listing; please add to this list and send us articles or other printed materials you think are particularly good so that we can share them with other teachers.

a. Newspaper and Magazine Clippings

The most useful readings for you and your students will be those you clip yourself. They will contain the most current defense information, the latest arguments in the nuclear arms debate, and the disarmament news of your community. Our best advice to you in the matter of clipping is to avoid limiting your clips to articles that simply present facts and rational arguments based on facts. Facts and rational arguments are essential to your teaching about nuclear arms, of course, but your students need a political, moral, and personal context in order to grasp them. That is why an interview of a worker in an arms plant, or a letter to Ann Landers from a sixth grader worried about war, or the report of a priest dumping blood on a Trident submarine are at least as valuable.

To start your clipping collection, we have listed and annotated several articles; most are either from The New York Times, widely available on library microfilm, or have been chosen by Promoting Enduring Peace, Inc. to be included among those that they will send you quickly and free of all but postage charges. Write or call Promoting Enduring Peace, Box 5103, Woodmont, CT. 06460, (203) 878-4769. This collection is meant to be only a model for the kinds of articles you can clip yourself, and the articles were chosen because they present a range of issues related to nuclear war and the arms race. Taken together, these clippings can introduce students to the fact that the nuclear weapons issue is a complex one, with more than simply two "sides" or positions.

No Nuclear News is a cooperative clipping service which is published six times a year. It contains approximately 50 clippings from newspapers across the country on the subject of nuclear arms and power. Cost: $7.50 a year; FREE if you send in clippings from your local newspapers. This could be a great incentive for students to read their local newspapers and to clip articles. Write to No Nuclear News, Box 149, Somerville, MA 02143.

1. Roger Fisher's "To Gain Peace in the Nuclear Age" (available from ESR) is a stimulating background article for you and your colleagues and, if you teach students with strong skills, good classroom reading too. In either case, use some of its rich anecdotes and illustrations in discussions with your students. Furthermore, let it inspire you to think up your own common sense illustrations of what it means to negotiate, to see things as the other side sees them, to succeed without winning.

Although "To Gain Peace..." is addressed to professionals, it implicitly suggests that everyone can do something about preventing nuclear war, including high school students. Its stirring conclusion calls them to action too, so you might consider excerpting the conclusion for them to read, even if they can't read the whole article.

2. Chris Chinlund's Boston Globe article, "Vermont Soldier Turns to Peace" (reprint included at end of section) is especially intended to point a direction for your own clipping. Every day in America and around the world, people assert what they believe at some cost to themselves, and increasingly, people are doing so in the matter of nuclear weaponry.

When they read an article about civil disobedience, the question your students must face, in order to clarify their own moral sense, is an old question in the history of thought: When can conscience take precedence over law? But it is too big a question to ask all at once. Break it down:

What does Father Davignon mean by his remark "This is a strong area of committed people who have worked hard on their farms, and the farms gave us not only roots but also wings"?

The article states that in James Bergeron's hometown, "patriotism usually comes before dissent." Under what circumstances, if any, do you think dissent is unpatriotic?

What limits, if any, do you think should be put on American soldiers' rights to question military policy?

Do you think Article 134 is a just law?

Do you agree with the petitioners' idea that actions like James Bergeron's help to increase the possibility of nucelar war?

Does such an effect justify breaking the law, in your opinion? Any law?

3. Some "Promoting Enduring Peace" articles:

"The End of the World Could Come This Year" is an interview of Helen Caldicott in the Bennington Banner of January 14, 1982, adapted from a longer interview in U.S. Catholic. Caldicott discusses our nearness to the brink and what's beyond it. Her talk is full of striking images students can understand, and peppered with numbers passionately recited ("Our computers have failed 151 times in the last

year. 151 times! We were 14 minutes away from nuclear war in November of 1979.") There is also a second Caldicott interview available from Enduring Peace: "Waking America Up to the Nuclear Nightmare," a New Roots interview by Rob Okun. In both interviews, Caldicott not only delivers a great deal of information, but also shares her feelings and stories about her own life. That is what makes them good models for your students' own classroom or homework interviewing. When they interview their grandparents about Hiroshima, or their parents about the 50's and the bomb (see Section 8, "Research Projects"), or the clergy, politicians, or military representatives you invite to your classroom, they must seek more than information. They must learn to ask questions that get people talking about their feelings, telling stories, opening up.

"A-Bomb Almanac", by Sidney Lens, in The Nation, April 4, 1981 is a compendium of ghastly figures (numbers and firepower of warheads on both sides, number of likely dead in a nuclear exchange, number of false alerts, number of nuclear nations, number of historical threats to use the bomb, etc.). They are simply presented in a one-page, unemotional summary, as stark to the committed as reading the names of war dead. However, in their starkness, they may not mean much to many students. Like other almanacs, this one is meant to be more used than read through.

You might ask your students to say which numbers particularly concern them, surprise them, or interest them. Ask them to bring these to life with graphs of their own design, or to contrast them to the numbers of more common events. Or, ask your students to write an essay in which they express a point of view on the arms race and in which they include at least five facts they have taken from this article or other similar articles.

4. Some New York Times articles:

"Looting the Means of Production", Seymour Melman, New York Times, July 26, 1981, is a good background article for you and colleagues, and good research material for students who can handle tough reading. It explores the effects of the arms build-up on the rest of our economy, and links decay of what it calls the economy's "infrastructure" to the diversion of brains, capital, plant, and natural resources from the production of civilian goods to the production of weapons. It is full of facts and figures that could be starting points for student research or supporting material for debates and essays. Its strong point of view reveals an important dimension of the arms debate, and challenges you and your students to look into the economic effects of our defense budget. Engage your students in economic research through their own observations and interviews of Chamber of Commerce representatives, labor leaders, local planning officials, the working members of their own families. Ask them to discover the effect of the defense budget on the economy of their community, the condition of local non-defense manufacturing plants, the number of local unemployed workers, the condition of local bridges and sewer systems, the proportion of American-made to foreign-made products in their family's recent purchases.

The Jobs with Peace Campaign's Education Task Force, 77 Summer Street, Boston MA 02110, has developed a five-day high school curriculum aimed at educating students about military spending, nuclear weapons, and budget cutbacks.

You may find several other recent New York Times articles useful in helping your students understand the moral and political debate now underway on the question of civil defense. Some say that this is the critical debate because its resolution one way or the other declares nuclear war survivable or not, and consequently the arms race as either a regrettable necessity or utter madness.

One article by Judith Miller in the Times of June 10, 1982, "Despite Foes and Skeptics, Administration Presses Ahead on Civil Defense," presents the scope of the issue and quotes experts on both sides. The second article, by John F. Burns, "Russians, Too, Joke Sadly on Atom-War Survival", appeared in the Times the day after Miller's article, and describes current Soviet thinking on the subject of their civil defense. (See "Research Projects", Section 8, for ideas for further research on this topic.)

Both articles portray the issue as a complex political and moral one, and would suggest to students who read them that -- like so many other questions involving nuclear weapons -- the question of civil defense cannot be resolved on purely rational grounds. In this light, the photo that accompanies Burns' article may be more powerful than the article itself. It shows young Soviet school children don-ing protective masks, practicing protection from our warheads.

These warheads are currently assembled at a Pantex plant in Amarillo, Texas. The plant is in the Diocese of Catholic Bishop Leroy T. Mathiesen, who recently advised its workers that they should search their consciences and consider whether their work is morally wrong. William K. Stevens' article, "Anti-Nuclear Position Proves Costly in Amarillo Home of Weapons Plant" (New York Times, March 21, 1982), deals with one of the repercussions of the Bishop's decision to speak out. It reports that the directors of the local United Way decided to cut off its support of Catholic Family Service, an agency of the Bishop's Diocese, because it would not promise to refrain from counseling Pantex employees wishing to leave their jobs for moral reasons. How would your students and their parents feel if a religious figure in their community suggested that they consider leaving their jobs for moral reasons? Is that a Bishop's business? On the other hand, what responsibility does the worker who makes warheads have to those Soviet children donning masks? Who has done more for peace: the Bishop or the directors of the United Way? Bishop Mathiesen is also the subject of a Life magazine piece, "The Bishop at Ground Zero," July, 1982.

On August 6, 1982, the thirty-seventh anniversary of the American bombing of Hiroshima, the New York Times printed four articles that you can use in your teaching: on page 1, a news piece by Judith Miller on the Congressional debate of the Freeze Proposal; also on page 1, an article by Wallace Turner that begins "Energy Secretary James B. Edwards witnessed a nuclear bomb explosion for the first time this morning and said he found it 'exciting'."; on page B4, a thoughtful portrait by Henry Scott Strokes of Hiroshima's Peace Museum including a report of the contrasting reactions of Americans who visit it; and finally, an Op-Ed piece, "Survive Those Nukes!" -- Tom Wicker on civil

defense. Most of the readings we have suggested here contain a disarmament bias. However, we believe that it is important for your students to read on the other side of the issue too. They need to know that you trust their abilities to make up their own minds and to use their own moral judgement, and we all need to hear and deal with each other's arguments -- to engage in dialogue -- in order to find the way to peace. Magazines with a generally pro-weapons perspective include National Review, Reader's Digest, Conservative Digest, Commentary, and U.S. News and World Report. You can find a similar point of view in the editorials of many newspapers.

Vt. soldier turns to peace

By Chris Chinlund
Special to The Globe

NEWPORT, Vt. – Ever since he was a boy on the family farm, James Bergeron had dreamed of joining the armed forces.

With images borrowed from comic books and war movies, he later recalled, he longed for the excitement and adventure of military service, especially the Navy.

In later life, as he worked as a bartender in a ski resort near the Canadian border, his sense of patriotism sharpened as he restlessly watched Russia invade Afghanistan, Iran take American hostages, President Carter outline his Persian Gulf policy and the underdog US hockey team defeat the USSR.

By January 1980, the feeling was too strong to ignore. He enlisted.

Now, almost two years later, Sp4 James Bergeron, 30, is facing military court martial, the possibility of up to six months in federal prison and a "bad conduct discharge" that would permanently blemish his record.

His crime: Attending, in uniform, a Dec. 5 peace rally in Heilbronn, West Germany, with thousands of other persons.

The events that eventually placed Bergeron in Germany and his predicament were recreated through a series of interviews conducted this week in this Vermont town near the Canadian border, as well as by telephone with Bergeron in Germany.

He is the first serviceman since the protests of the Vietnam war era to challenge the army regulation forbidding demonstrating in uniform, according to his lawyer. For Bergeron, the act culminated a year of increasing attraction to the growing European peace and antinuclear movement, and frustration with America's defense policies.

"I weighed all the consequences before I acted, and I got over the fear before I did it," he said in a brief telephone interview Monday from the 385th Military Police Battalion in Ludwigsburg, West Germany.

"I have nothing to be ashamed of and will take it to the court-martial proceedings . . . I would do it again . . . even though I've been labeled un-American."

It is a case that has sparked sympathy and letters of "solidarity" from the European peace movement, as well as a flurry of support from his home town of Newport – a conservative northern Vermont town where patriotism usually comes before dissent.

Rachel Bergeron has enlisted friends and relatives in a petition drive on her son's behalf. The petition asks the US Army to drop its court-martial plans because "in a time of growing hostility between the superpowers and nuclear weapons production, we find such actions as James Bergeron's commendable as a means to decrease the possibility of nuclear war."

Staring at an old photograph of her son, bewilderment and worry deepening the lines on her face, Mrs. Bergeron asked: "Can you imagine that fellow spending six months in detention? . . . It breaks my heart to think of it.

"I want him to be treated justly, and I have hopes he will be," she said, describing James as a "nonaggressive and normal" young man who worked hard on the farm and never got into trouble.

It is unclear whether the petition drive or the "monitoring" under way by the office of US Sen. Patrick Leahy (D-Vt.) will alter the army's case against Bergeron. It is also unclear whether the charges against him will affect his request on Sept. 15 to be classified as a conscientious objector. Hearings on that request are proceeding parallel to the court-martial.

Major James Weiskopf, a spokesman for the Army in Washington, said yesterday that he is not familiar with the Bergeron case, which is being handled in Germany. He declined to comment, except to say it is usual procedure to take action against someone who demonstrates in uniform. The officer in Germany in charge of the Bergeron case could not be reached for comment.

According to Bergeron's lawyer, Jon Landau of the Central Committee for Conscientious Objectors in Philadelphia, Bergeron has been charged with violation of Article 134 of the Uniform Code of Military Justice. In essense, he said, Bergeron is accused of bringing disrespect to the American serviceman's uniform.

Bergeron said he was not surprised at the charge, only the swiftness with which military officials apprehended him after the rally.

He said he was detained, questioned about alleged ties to Communist and terrorist groups and then put in a cell. He said he went on a hunger strike but abandoned it after four days, when he found it did not help his situation. He said he is confined to the base until the court-martial, which is scheduled for January or February.

Bergeron denied being a Communist or terrorist. "The whole peace movement has been erroneously painted red by my nation's leaders," he said.

Members of Bergeron's family say that, while they support the nation's military, they fear it will be too harsh on James, perhaps using his case to set a chilling example to other would-be protesters.

"I think the military tends to be excessive on this kind of issue," said Bergeron's cousin, the Rev. Charles Davignon, pastor of St. Mary's Church in Newport. "Six months confinement – that seems to be an extremely strong sentence."

Fr. Davignon said he had seen the seeds of pacifism growing in his cousin but had not expected him to take such a strong stand. "I think Jim was challenged here by his brother, and I would like to think by me, to take a broader view of life and commitment," he said. "I didn't think he would go to this point, but I am proud of him."

As for conservative Newport producing someone willing to buck the powers-that-be in the name of peace, Fr. Davignon said, "This is a strong area of committed people, who have worked hard on their farms, and the farms gave us not only roots but also wings."

Professor Alfred Toborg, one of Bergeron's teachers at nearby Lyndon State College just before his enlistment, recalls Bergeron as a good student who "asked questions."

Bergeron's questioning of American military policy began one day when he was strolling through the Stuttgart University campus and saw a poster warning of atomic death, he said in a report for his conscientious objector hearing. The poster showed four American servicemen dressed in chemical protection suits standing in front of three missiles and announced a peace rally in Heilbronn.

Bergeron attended the gathering and a later one in Bonn – out of uniform – before going to the Dec. 5 rally in Heilbronn in uniform.

"I was often asking myself the question," he wrote later, "How would I feel if this was my country and it was my land that was being used as a base of operation for the armies of France, England and the US? How would I feel if my country was to be the likely next battleground for Europe's next war?"

b. *Short Stories and Novels*

You may want to supplement your clippings with imaginative literature, which may work more powerfully than anything else to acquaint your students with the dangers we face in our nuclear world, and the opportunities we have to lessen them.

Three easy-to-read short stories:

1. Ray Bradbury's "The Flying Machine", from Golden Apples in the Sun. An ancient Chinese emperor witnesses the first human flight when one of his subjects soars overhead in a kite he has fashioned. The emperor has the man executed and the kite burned, because he fears that this thing of beauty may someday become an instrument of destruction in the hands of a man with "an evil face and an evil heart."

Albert Einstein said that the unleashed power of the atom has changed everything except our way of thinking. We have not lived long enough in this nuclear age for most of us to understand what he really meant, yet his words haunt us. What would he have thought of the ancient emperor's method of dealing with technological advances that threaten radical military change? Would the emperor have had Einstein executed?

In a New York Times Op-Ed article on February 11, 1982, "Against Trident II", Congressman Thomas J. Downey included a passage that illuminates the issue at the heart of the Bradbury story:

> Trident II is nurtured not by a Strangelovian desire to annihilate humanity but from the coincidence of two technological opportunities. For the first time, it is becoming possible to build a highly accurate submarine-launched ballistic missile, and for the first time, we have a submarine capable of launching a very heavy missile accurately. To a weapons developer, these unfulfilled opportunities create a vacuum that cannot be allowed to exist. It is our inability to control such mindless, amoral technological momentum that can spawn humanity's terminal blunder.

2. Donald Barthelme's short story, "The Game", is from his collection of stories, Unspeakable Practices, Unnatural Acts, and is also in a Scholastic Books paperback anthology text for high school students entitled Possibilities. It is a first-person narrative account of a man who has been on duty in the command capsule of a missile launch control center for 133 days. Normally men in his line of work are relieved after 24 hours. But there has been an oversight, he tells us, and this oversight has clearly cost him his sanity. Now all that he can think of is playing jacks, but the man who shares the capsule with him keeps the jacks and the little rubber ball locked in his attache case.

Barthelme's story depicts the routines inside the watermelon-shaped command capsules at our missile launching sites in the West. Partners are told to watch each other for signs of stress or other deficiency, as they do in this story, and they have keys which give them access to launch instructions.

Barthelme's fiction explores one of many possibilities for nuclear accident -- and by extension all of them. The Promoting Enduring Peace collection includes a Newsweek article by Harvard Medical School professor James E. Muller, "On Accidental Nuclear War", that would make an excellent non fiction companion reading to Barthelme's story.

3. Our missile launchers are trained on the Soviets. But who are the Soviets? One good way to examine this question with your students is through Soviet literature. The short story "The Fate of Man" by Mikhail Sholokov is a good choice. It is the story of a Soviet soldier in World War II; he spends time in Nazi prison camps, and returns home to find his family has been killed in a bombing attack. The World War II setting -- when the U.S. and Soviet Union were allies fighting a common enemy -- may help your students bypass cold war distortion to reach an understanding of Soviets as people. The story will also help them understand the tremendous loss of life in the USSR during World War II. Discussion might simply center on your students' reaction to the story, on the common experience of human love and loss and bravery and despair. Or it can involve questions about where we get information about the Soviet Union, what assumptions students make about Soviet life and values, and perhaps how those assumptions can be examined. Emphasis can be placed on the distinction, especially in this case, between people and government. An additional interesting question: what assumptions do Soviets make about us? (The story is available through Imported Publications, Inc., 320 West Ohio St., Chicago IL 60610, (312) 787-9017. Stories, by Mikhail Sholokov, published by Progress Publishers in Moscow.

4. Other Literature:

It would be impossible to list here all the pieces of literature that would afford good activities and discussion for the Day of Dialogue. To mention a few, and the issues they raise:

> Orwell's 1984: The ideas of doublethink and double-speak contrasted with an analysis of present-day language used by governments.
>
> Hersey's Hiroshima: The physical and emotional effects of atomic war.
>
> Heller's Catch-22, Vonnegut's Slaughterhouse Five, Dalton Trumbo's Johnny's Got His Gun: For a discussion of conventional war, a subject of concern for draft-age students.
>
> Vonnegut's Cat's Cradle: Living with the possibility of the annihilation of the human race by Ice-9.

Kennedy's Thirteen Days: A short account of the decision-making during the Cuban Missile Crisis.

Two less well-known but powerful books with a high interest reading level:

Judy Blume's Tiger Eyes: A 15-year-old girl tries to put her life together after her father is murdered in a robbery of his store. She is living temporarily with an aunt and uncle in Los Alamos, New Mexico, where her uncle works as a nuclear weapons researcher. She begins to connect her personal experience of violence in her father's death to her uncle's association with the threat of nuclear violence.

Ron Kovic's Born on the Fourth of July: The autobiography of a soldier in Viet Nam. The story is powerful and the language is rather strong.

One play which is not very well known:

John Somerville's Crisis: True Story About How the World Almost Ended: The process of deciding what to do during the Cuban Missile Crisis is re-enacted. The main characters are the President, UN Ambassador, etc. There is a sub-plot about the President's secretary and an intern who figure our what's going on and react to it. Order directly from author: 1426 Merrit Drive, El Cajon, CA 92020. $1.00 a copy.

c. *Poetry Reading and Writing*

Reading poetry can help people imagine and think about what nuclear war means to them personally. Writing poetry can help them release any fears by putting them in words and images and sharing them with others.

Sources of poetry related to nuclear war:

1. Village Voice of June 15, 1982 has three poems on the topic.

2. The Writing on the Wall: 108 American Poems of Protest edited by Walter Lowenfels (1969 Doubleday paperback) has a dozen poems on modern war.

3. Many modern poetry anthologies have these excellent poems:
   -Sandburg's "Smoke" (contradiction of sitting back while war goes on)
   -Henry Reed's "Naming of Parts" (beautiful day contrasted with a lesson about the parts of a rifle)
   -Don Gordon's "The Kimono" (for women of Hiroshima)
   -Donald Justice's "Counting the Mad" (being called crazy for protesting what is wrong)
   -Felix Pollak's "Speaking: The Hero" (on a reluctant soldier)

Poetry writing ideas: Poetry writing about nuclear arms must start with some kind of gripping experience which will make the issue less abstract and more real.

- -Read a page from John Hershey's Hiroshima -- the experience of particular Japanese people on the day of the A-bomb.
- -Read an account of Hiroshima survivors (Progressive magazine, August 1981)
- -Show a movie if you can
- -Show students photographs of nuclear weaponry (Life magazine, February 1982) or Hiroshima or other war photographs
- -Read "A Survivor's Story" in the "Children of the A-Bomb" exercise.
- -Use Unforgettable Fire: Pictures Drawn by Atomic Bomb Survivors by the Japan Broadcasting Company. Pantheon, NY.

Writing ideas:

1, Most past wars built up slowly. Nuclear war, however, could start with a "bolt out of the blue". Both the US and USSR could be largely destroyed in a matter of minutes. Write a poem that is a simple list of what is or could be going on in one minute. Here is a sample "right now" and "six second" poem by two students from Watertown (MA) High School.

At This Moment
A young girl is blinking her eyes
A pigeon is dropping white onto a car window
Someone is getting stabbed
But nobody cares about them.

At This Moment
A baby is burping
An old man is taking out his dentures
A Russian is setting his first foot in Afghanistan
But nobody cares about them.

Six Seconds
Believe it or not
It's a long period of time
A jet can fly a whole mile
A baby can open its eyes
A seed can start to grow
A life can expire.

2. Force Fit Poems. Brainstorm with students words which come to mind when they think about nuclear war, and put them on the board. Ideas: mushroom cloud, fear, bomb, death, peace, radiation, pushing the button, Hiroshima, etc. Then brainstorm a list of words which describe everyday objects. Ideas: grass, clock, wood, wind, sandpaper, stone, garden, motorcycle. Put all of the words on small pieces of paper, and divide them into two piles. Have students choose a slip of paper from each of the two piles, then write a short comparison poem that shows some kind of connection between their two words. Student mo[illegible]:

Words: Death and Mud
Death, my own,
is like mud in my hands,
I try to hold onto it,
but the tighter I close my fist
the more I lose.
-Terri Urciuolo

Life and Crackerjacks
Life is like a
box of crackerjacks --
what'd you get?
-author unknown

Words: Death and Mud
Death is like the wind
that blows upon you
when you are alone
and unsuspecting
-Danielle Pettijohn

3. Write an acrostic poem: write one of these words DOWN the page. Then use each letter as the beginning of a word or phrase that relates to that word. Example:

F ollowing
O ur President to bed
O r to the White House,
T he football waits to be opened, the
B utton waits to be pushed
A nd the world waits.
L et the football wait forever,
L et the world live.
-Barbara Beckwith
(Teacher, Watertown (MA) High School

A rguing about
N othing.
G etting nowhere
E ventually hurting.
R emember the reason?
-Antonette DiVasta

4. Write a poem that contrasts your present life and a nuclear war, or your life compared to army life, or a threatening world compared to a peaceful one. (Sandburg's "Smoke," Reed's "Naming of Parts" and Pollak's "Speaking: The Hero" are all good models of contrast poems.) Student model:

the world of happiness
the world of joy
the world of bombs
the world of guns
is another world
so far far away
will it stay far away
until it goes away?
-Sheila Precopio

5. Have students call our specific fears, questions, wonderings about the nuclear arms race issue. Write phrases they use on the board. Have students write poems (rhymed or unrhymed) on one of these words. Student models:

Fear
When I go to the beach
It's always a time
For thinking of fears
And how your life
Has gone past you
So many crystals of sand,
So many thoughts of fear.
-Jenny Gernes

Death
To be gone
to have no identity
to have been
to be lost where no one can find you
in a different place
no feelings
just BLANK
everyone vanished
everything vanished
no colors
no smells
no sunrises or sunsets
no moons or rainbows
just BLANK
-Julie Edwards

Have students imagine the world as they would like it to be. Create a picture of that world in a poem. (see exercise on "Envisioning a Future" in Section 6.)

6. Content Area Topics

It is possible to design lessons that focus more specifically on one content area than another. However, many of the issues are interdisciplinary in nature: it is difficult to study the physics of a nuclear explosion without also considering the social question of whether humans should invent technologies with such enormous destructive force. The following four lessons are meant to be models to suggest the kinds of topics that can be discussed in particular subject matter areas. We've included science (The Physics of a Nuclear Explosion), social studies/history (Children of the A-bomb), math (Mapping Exercise), and English (Envisioning a Future). Feel free to use these exercises in any of your classes, though, and use the rest of the guide to find exercises which seem especially pertinent to your class or in the subject specialty. High school teachers might want to use the topics, questions, and suggested readings in the Study Guide at the beginning of the manual in their classes as well.

a. Physics of a Nuclear Explosion

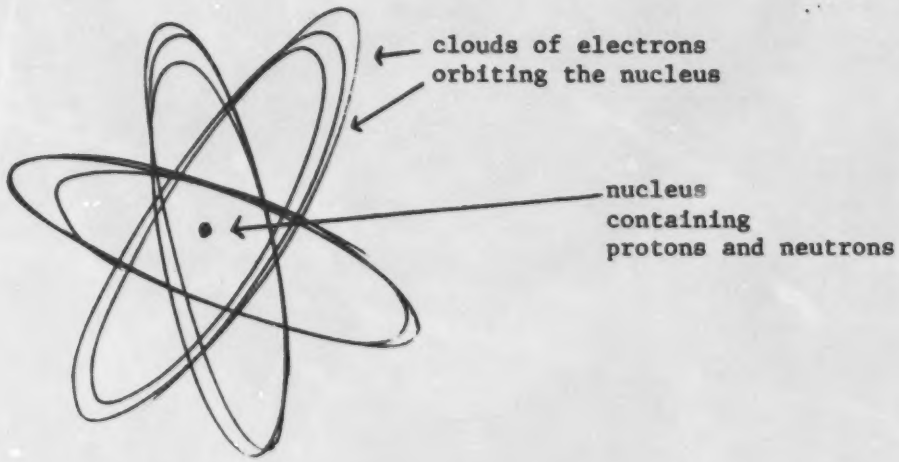
Many high school students and some sophisticated junior high school students have asked teachers specific information about nuclear weapons. This article can help students realize that a nuclear weapon is a concrete device whose workings can be understood. This is an important section in making nuclear technology real. It is also important to point out that a nuclear explosion is significantly different from a conventional explosion.

The Physics of a Nuclear Explosion*

You have probably heard people talk about two kinds of weapons: nuclear weapons and conventional weapons. Nuclear weapons are designed to cause huge explosions. Some of them are bombs which could be dropped from aircraft just like conventional (non-nuclear) bombs; some are missiles, which could be launched into the air from ships or planes or from land to reach targets tens, hundreds, or thousands of miles away. Whether a bomb or a missile however, any nuclear weapon carries at least one nuclear warhead -- something made from very special materials that can release enourmous amounts of energy in a fraction of a second.

Much more energy can be released by these special materials than by the same weight of a conventional explosive like dynamite. Also, the effects of a nuclear explosion on people and buildings and the environment are very different from the effects of a conventional explosion. What makes them so different is that right down on the scale of atoms, very different things happen in each case. This chapter will try to explain enough about atomic physics for you to understand what happens in a nuclear explosion, and the next chapter will describe the effects of a nuclear explosion on things around it.

Diagram 1: an atom



*Prepared by Sheena Phillips, Program in Science and Technology for International Security, Massachusetts Institute of Technology, Cambridge, Mass.

Atoms

Everything is made up of atoms, and every atom contains both a nucleus and a cloud of electrons that fly around the nucleus very fast. The nucleus itself contains two different types of particles: protons and neutrons. Protons and neutrons are almost identical except for their electric charge. Electric charge is something which some particles have and others do not. It comes in two types, which just out of convention are called positive and negative. Protons have positive charge, electrons have negative charge, and neutrons are neutral: they have no charge.

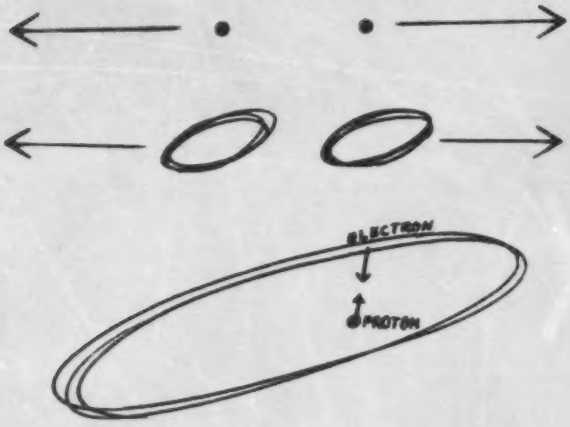
Compared to protons and neutrons, electrons hardly weigh anything, so most of the weight of the atom is in its nucleus. Even so, it is extremely small and light: about one hundredth of a millionth of a centimeter across, and about a thousand million million million times lighter than a kilogram in weight. For comparison, a pea is about one centimeter across, and one kilogram (kg) is roughtly the weight of a quart of milk.

Electric charge is responsible for all sorts of things. For example, any two things with the same type of charge -- both negative or both positive -- repel each other; they push each other away. On the other hand, any two things with opposite types of charge -- one positive and one negative -- attract each other. Sometimes very fine hair will stand up on end and spread apart if it is brushed hard. This is because the friction between the brush and the hairs rubs electrons off one and on to the other. The hairs are left with one type of charge and the brush has another -- so the hairs repel each other but they are attracted to the brush. Another effect of electric charges attracting or repelling each other is electric current: an electric current is what you get when particles of one charge move towards particles of the other charge.

In the case of the atom, electric charge keeps the electrons going round the nucleus. Electrons and protons have opposite charge so they are attracted to each other and the electrons carry on moving round the nucleus instead of flying off at a tangent. The force keeping them in is called the electromagnetic force.

You can imagine that in a nucleus with more than one proton, the protons all repel each other very strongly: they all have positive charge and yet they are squashed into a tiny space -- about one hundredth of the size of the atom. What keeps the protons bound together is a very strong force called the nuclear force. It is about one thousand times stronger than the electromagnetic force -- strong enough to overcome the repulsion between the protons. The nuclear energy that the particles in the nucleus have is much greater than the electromagnetic energy of the electrons going round the nucleus (see diagram 2).

Diagram 2: forces between charged particles



protons repel each other

electrons repel each other

protons and electrons attract each other

Nuclear reactions

It happens that in certain types of atoms, certain things can happen to the nuclei that release nuclear energy. Since there is so much more nuclear energy than electromagnetic energy in a single atom, the energy that is released in these nuclear reactions is much greater, atom for atom, than the energy released in chemical reactions -- changes that involve only the electrons, not the nuclei, of atoms. The reason why a nuclear explosion is so much more damaging than the explosion of the same weight of dynamite, or "TNT", is that the energy released from these conventional explosives is released in chemical reactions, not nuclear reactions.

There are two types of nuclear reactions that can release energy. They are called nuclear fission and nuclear fusion. Nuclear fission is what happens if one nucleus splits into two parts, and nuclear fusion is what happens if two nuclei get pushed together until they merge, or fuse. Different types of atoms have different numbers of neutrons and protons in the nucleus, and nuclear weapons are made from certain very particular kinds of atoms that are easier to split or fuse than others.

There is a different name for each type of atom. Many names that you are probably familiar with -- like iron, or oxygen, or carbon, or hydrogen -- are simply the names of elements -- the kinds of substances you get when all the atoms in it have the same number of protons. Other names are the names of isotopes of elements. Two atoms are isotopes if they have the same number of protons but different numbers of neutrons. For example, deuterium (often written D), tritium (T), and hydrogen (H) are all isotopes of each other (a bit like saying they are cousins). Deuterium atoms have two neutrons in the nucleus, tritium atoms have three, and hydrogen atoms have none, but they all have exactly one proton.

Some of the materials used in nuclear weapons are made up of especially heavy atoms called plutonium (P) and uranium (U). Plutonium and uranium atoms each have over ninety protons and over one hundred neutrons. They are nearly the heaviest types of atoms that exist, and

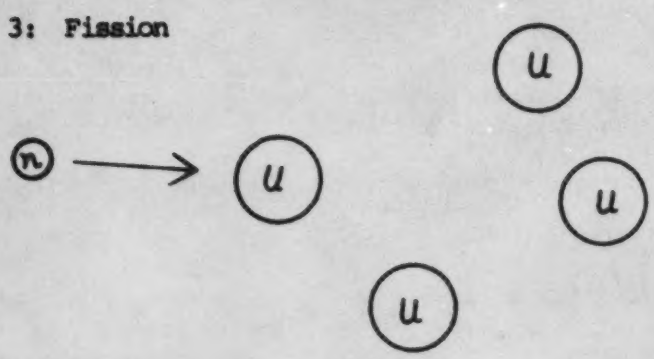
they can be made to release nuclear energy by splitting -- in nuclear fission reactions. The other materials in nuclear weapons are made from especially light atoms, like deuterium and tritium which have only one proton in each nucleus. These atoms can be made to fuse together to release energy -- in nuclear fusion reactions.

Nuclear fission

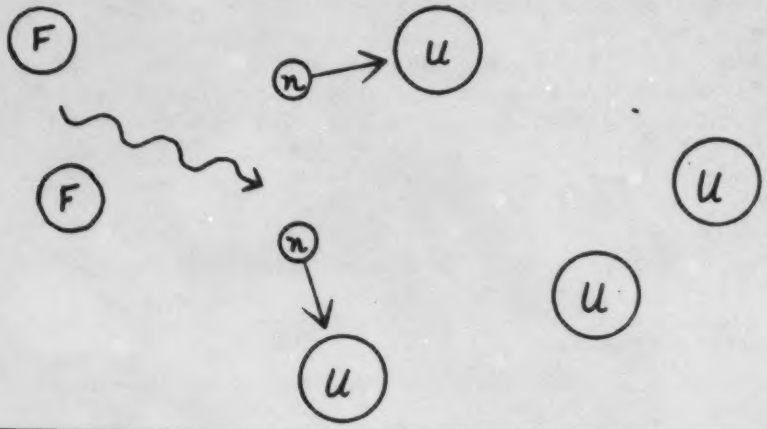
The more protons there are in a nucleus, the more they repel each other, and the more loosely they are held together by the nuclear force. If a heavy nucleus splits in two smaller parts, the protons become less free to move around, and some of the energy with which they moved around before is released. If one uranium nucleus splits, it releases about nine millionths of a millionth of a calorie of energy. This is of course a very small amount, but there are six hundred thousand million milion million nuclei in a ball of uranium just 2-1/4 inches across, and the fission of all these nuclei would produce five million million calories! Atom for atom, this is a million times more energy than the energy that a chemical reaction could release.

One very important fact about the fission of a uranium or plutonium nucleus is that, on average, two neutrons escape. These neutrons do not end up in one of the two new nuclei; they are free to move around. Also, they have just the right amount of energy to trigger the fission of another two nuclei by colliding with the nuclei. When these two nuclei split, they may release four more neutrons between them, triggering the fission of four more nuclei, and so on. If there are enough atoms around, available for fission, a chain reaction builds up (see diagram 2). The key to using nuclear fission to provide energy in an explosion is to provide enough plutonium or uranium -- about 10 kg of plutonium, and nearly 100 kg of uranium, is used in a typical nuclear warhead. The isotope of uranium used is called uranium 238 (U-238). 238 is the total number of protons and neutrons in the nucleus. Since uranium is the name for an atom with 92 protons, U-238 must have 146 neutrons. Another isotope of uranium is U-235. This has 92 protons and 143 neutrons, but it is not used in nuclear weapons because it does not split so easily.

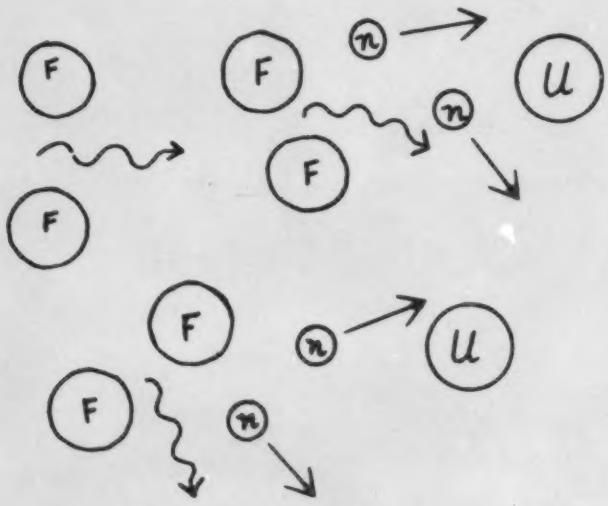
Diagram 3: Fission



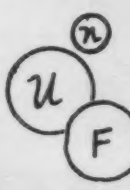
a strong neutron from another atom collides with a uranium nucleus



The uranium atom splits in two fragments and releases two neutrons and a wave of energy.



Two more uranium atoms split and release neutrons and energy.
The process spreads.



= neutron

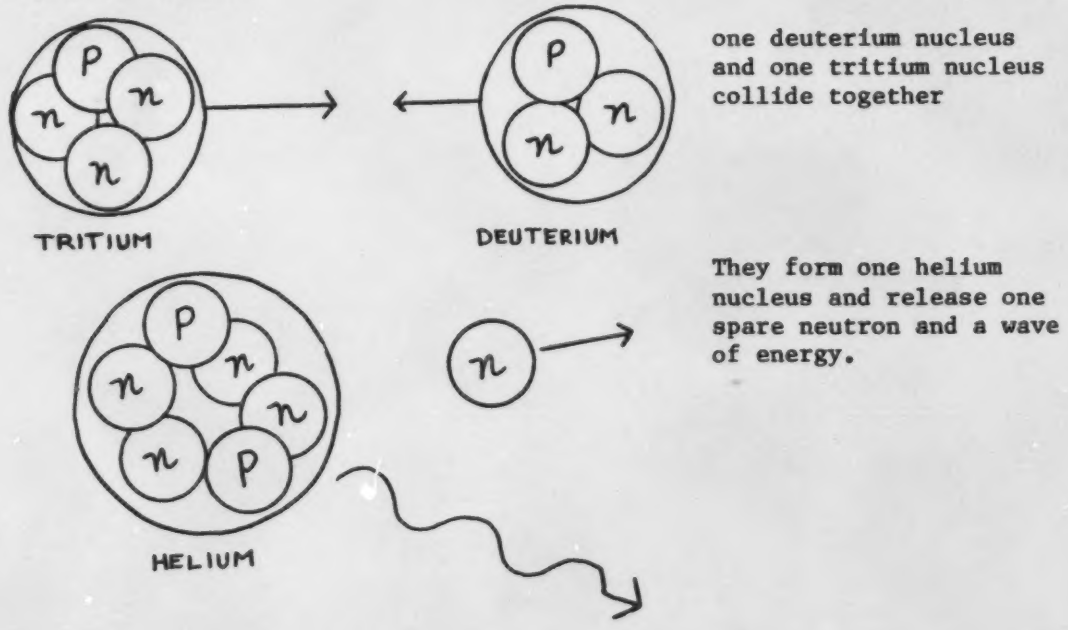
= uranium nuclear

= fission fragment

Nuclear Fusion

Small nuclei can be pushed together more easily than large ones. There are only a few protons in each nucleus so the repulsion between the nuclei is relatively weak. The nuclei have to get energy from somewhere in order to be able to push together but once they fuse, much more energy is released, so the net effect in a fusion reaction is that nuclear energy is released. In a nuclear weapon, the energy needed for the fusion of the small deuterium and tritium atoms comes from the fission of large plutonium nuclei. The deuterium and tritium nuclei pick up so much energy that if a deuterium and a tritium atom are moving together on a collision course, they fuse together before the repulsion between them can push them apart. One deuterium nucleus (one proton and two neutrons) and one tritium nucleus (one proton and three neutrons) fuse to form one helium nucleus (two protons and four neutrons), and one "spare" neutron which escapes on its own. Also, a little wave of energy is emitted. The electrons belonging to the two nuclei now all move around the new helium nuclei.

Diagram 4: Fusion


TRITIUM
DEUTERIUM
HELIUM
one deuterium nucleus and one tritium nucleus collide together
They form one helium nucleus and release one spare neutron and a wave of energy.
P =PROTON
n = NEUTRON
ENERGY WAVE

A nuclear explosion: the first millionth of a second

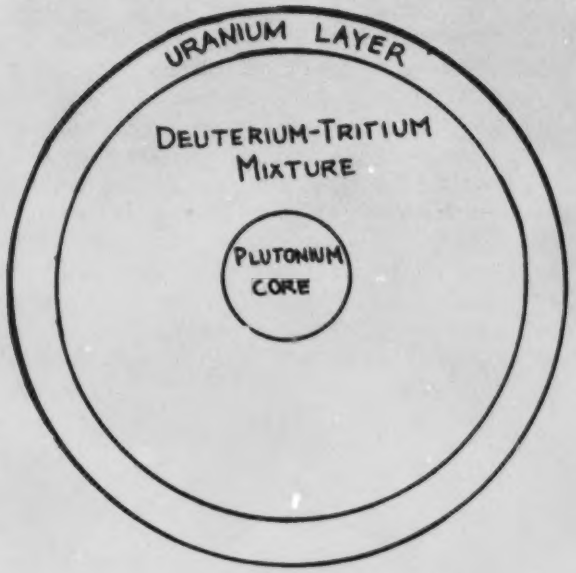
The center of a nuclear warhead is a sphere of plutonium. This is where a nuclear explosion -- the sudden release of nuclear energy -- starts. This process is set off by a network of conventional (chemical) fuses that are timed to burn in from the outside to the center. As they burn inwards, the plutonium in the middle gets compressed. The plutonium atoms get squashed so close together that the nuclei of different atoms begin to affect each other differently from before. Some neutrons are free to move away from one nucleus and get close to another nucleus. This can make the second nucleus split, and as soon as a few nuclei split a chain reaction builds up in millions of other atoms.

Energy released by the fission of the plutonium core is absorbed by the ring of deuterium and tritium surrounding it (see diagram 5). Millions of deuterium and tritium atoms fuse together and the neutrons that are released from the fusion reactions travel on into the uranium layer. This starts the fission of the uranium nuclei and a chain reaction builds up there too.

All this takes place within about a millionth of a second. So much energy is released that the temperature of the materials of the warhead reaches 130 million degrees. This is a phenomenal temperature; it is as hot as the sun. The pressure inside the warhead is also enormous: about 100 million times greater than normal air pressure.

Energy is directly connected with both temperature and pressure. In fact, what we call "heat" is simply one form of energy. A flame, or the electric rings on an oven, both give out waves of heat energy. Things nearby absorb enough of the energy to get noticeably hotter themselves and in a nuclear explosion, everything in the warhead gets extremely hot. Pressure, on the other hand, measures the force per unit area with which one thing presses against another. The higher the temperature, the faster atoms move and the higher the pressure they exert on whatever they press against. In the case of a nuclear explosion, the super-hot atoms in the warhead literally explode outwards in all directions, pushing on the atoms of the air or the ground with a huge force.

Diagram 5: Nuclear warhead

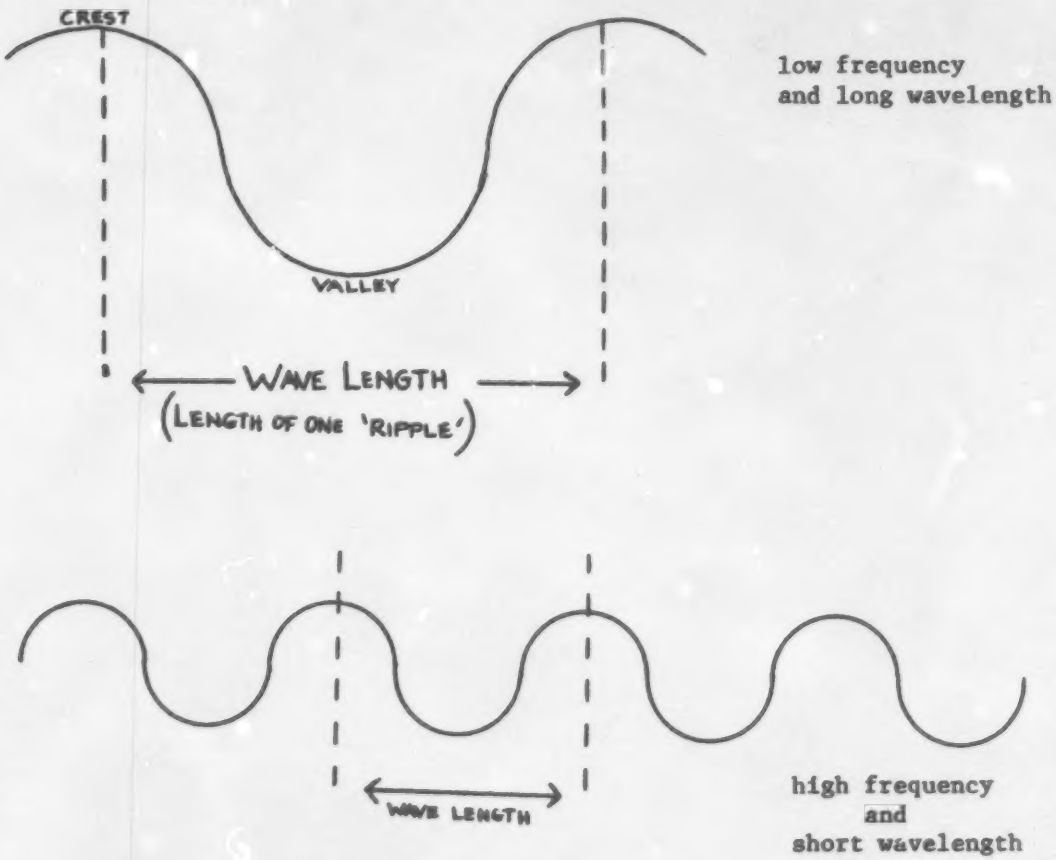


The network of fuse wires is not shown. The wires burn into the center from the outside, compressing the core.

Electromagnetic waves

The nuclear energy released in the fission and fusion reaction cannot possibly all be absorbed by the atoms in the warhead. Instead, most of it starts spreading away in waves called electromagnetic waves. Electromagnetic waves, electromagnetic radiation, or simply "light", are all names for this type of wave of energy. The light that we can see, visible light, is just one form of light wave. To think of the waves, imagine what happens when a stone is dropped into a pond: the ripples, or water waves, carry energy outwards. Light waves also carry energy, but it is impossible to see the ripples because the wavelength is so small and the frequency is so large. The wavelength is the distance between two peaks or two valleys, and the frequency measures how many peaks go past every second (see diagram 6). For example, visible light has a wavelength of about ten millionths of a meter -- a thousandth of a centimeter. Its frequency is about ten million oscillations every second -- ten million "ripples" would pass you each second.

Diagram 6: Waves



There are different names for light waves of different ranges of wavelength. Gamma rays are waves with wavelength about a million times smaller than visible light. They are the shortest electromagnetic waves that we come across. X-rays, ultraviolet (UV) light, visible light, and intrared (IR) radiation are names for electromagnetic waves with larger wavelengths (in increasing order). The shorter the wavelength, the more energy each ripple carries. Gamma rays carry the most energy; gamma- and x-rays can both penetrate people's skin. UV light makes our skin feel warm but it does not penetrate so far. IR light is even less energetic.

The hotter something is, the more energy it emits and the shorter the wavelength of the energy waves. Most objects give out IR radiation all the time provided they are at normal temperatures (a few tens of degrees). In a nuclear explosion, however, the electromagnetic waves of nuclear energy that spread away from the bomb have all sorts of wavelengths. Some of this nuclear radiation is very high energy gamma radiation; some of it is visible light, and some is UV or IR light.

A nuclear explosion -- after the first millionth of a second

The first thing to break away from the fireball -- the seething mass of super-hot atoms that once made up the warhead -- is an intense burst of neutrons and gamma rays that were emitted in the nuclear reactions. Right after this there is a flash of visible light and radiation of all sorts of other wavelengths. The visible light alone is hundreds of times more intense than the sun seems to us.

Meanwhile, the air immediately around the bombs gets extremely hot from absorbing x-rays. Hot air also absorbs visible light, so for a few seconds after the flash, until things cool down enough, no more heat or visible light gets very far away from the center of the explosion. Instead, it gets absorbed by layer after layer of air, heating the air so hot that it too starts bursting away from the center. This process, on the one hand, removes energy from the interior of the fireball and cools it down. On the other hand, it makes the fireball expand and grow.

As it cools down, the speed with which the fireball grows slows down. When its temperature has dropped to about 300,000°C (still thousands of times hotter than boiling water), its expansion has slowed down to the speed of sound (about one mile every five seconds). At this point, a huge wall of pressure builds up at the edge of the fireball. The inside of the fireball is hotter than the edge, and traveling faster than the speed of sound (supersonically). It slams up against the edge and a shockwave gets transmitted through the air away from the fireball in all directions, heating the air and rushing outwards with great force.

When the air affected by the shockwave and the fireball is too cool to absorb visible light, the visible light gets away and the fireball can be seen. This is called the breakaway point. The fireball is already quite big by this time -- hundreds or even thousands of feet across, depending on the size of the warhead. It continues to get bigger and cooler after the breakaway, and the average energy of the electromagnetic waves that it emits also decreases. The radiation changes from mainly x-rays to mainly visible and UV to mainly IR light. The main stream of UV, visible and IR light lasts about ten seconds, and it carries enough energy to heat things until they burn.

The fireball gradually starts moving upwards in a mushroom shape. As it rises it drags up with it millions of tons of vaporized dust and dirt from the air and ground. If something is "vaporized", it means that the atoms in it have become so hot that they have burst away from each other -- they do not hold together in groups or in a solid lump, but form a kind of cloud. The nuclear warhead itself becomes vaporized, and so do the air molecules (groups of atoms) and the dust particles that get heated by the nuclear energy from the explosion.

Eventually the dust particles cool down and fall or get carried by winds over the earth until they settle. Fission fragments -- the smalled atoms formed by the fission of large uranium or plutonium atoms -- stick to the dust particles and get carried with them. Many of these fission fragments are radioactive: their nuclei are unstable and keep breaking down further, emitting neutrons and waves of gamma radiation. This is why the dust is called radioactive fallout.

The size of the fireball and the mushroom cloud depends on the yield of the warhead -- how much energy it releases -- and on where it is detonated (blown up). The yield is measured in tons. This doesn't stand for the weight of the warhead, because a typical nuclear warhead only weighs about 100 kg. It means that the nuclear warhead gives out as much energy as that many tons of TNT (a chemical explosive). For example, a one megaton (MT) warhead releases as much energy as one million tons of TNT. The fireball at breakaway of a 1 MT nuclear weapon that explodes on the ground is about 2300 feet. It grows to about 30,000 feet (about 6 miles), and rises about 70,000 feet into the air before it has cooled down.

After the shockwave bursts, intense winds rush outwards at hundreds of miles per hour. Gradually they slow down, and then the air is swept back up by the rising fireball. The radioactive fallout spreads for miles, giving out radiation long after the other radiation from the nuclear explosion has died away.

b. *Children of the A-bomb*

History, social studies, or English classes can explore the human costs of dropping a nuclear bomb by reading stories told by the survivors of Hiroshima and Nagasaki. (Children of the A-Bomb: The Testament of the Boys and Girls of Hiroshima, compiled by Dr. Arata Osada, and published by G.P. Putnam's Sons, N.Y., 1959 is a good source.) Although the decision to drop the bombs was a complex one, many textbooks talk about it only in military terms, and leave out the cost in human life and suffering, and the struggle of the Japanese people to recover from the devastation and to build a world-wide peace movement for Japan.

In order to personalize what happened at Hiroshima and Nagasaki, we have included an oral history excerpt written by a girl of junior high school age who was in second grade when the bomb was dropped on her city of Hiroshima, and an account written by a woman who also lived in Hiroshima when the bomb was dropped, but who was in seventh grade at the time. This is difficult material. We anticipate that students will feel disturbed and perhaps even fearful after reading these stories. These accounts are also apt to raise many questions for your students. We encourage you to allow students time to reflect and express their feelings, and to take the time to research the answers to their questions with them.

From: Children of the A-bomb, by Dr. Arata Osada

Takako Okimoto -- 8th grade girl. In 2nd grade in 1945.

The 6th of August 1945 -- which I do not forget -- the things that happened this day are deeply carved in my heart. That cruel war that snatched away so many precious human lives in one second -- even now I shudder when I think of it. I am all alone after losing my father and mother and all my brothers and sisters. And no one can take their place. All of them, as a result of that A-bomb, were struck down one after another. My oldest brother was never found after he left to work with the Labor Service Group. My second brother's whole body was covered with burns and he died the next day at the Koi Grammar School. We left his body there at the Koi school and Father and Mother and the rest of us returned to the country. Since there were no good doctors in the country, my mother returned to town for treatment. At night a man came saying that she had suddenly become worse and called us back to town. When we arrived a strange, bad odor was rising everywhere, and the sights we saw! Everything imaginable was in ruins. You could not see a trace of the former Hiroshima. When we somehow managed to reach home we found that Mother had breathed her last a few minutes before. I cried for all I was worth. We cremated Mother's corpse on the stony river bed. Here and there all along the shore people were cremating corpses. And that evening just after we arrived back at my uncle's house in the country with Mother's ashes, my big sister died. Because I was still so little I didn't know what I ought to do but I put all my energy in nursing the father and sister who were left to me. But my little sister who was so cute died the day after my big sister's funeral. Father was able to go to my big sister's funeral but he no longer had any strength to get up for my little sister's funeral. I wonder whether the priest who came for my sister's funerals had also breathed the poison? He was no longer around at the time of Father's funeral.

As they all died like this one after another, there is no doubt that my father who lasted the longest must have lost all hope.

But even so when I asked him, "Father how are you this morning?" Father always answered to keep my spirits up. "This morning I feel a little better."

The fact was, his bodily health kept getting only worse. Full of anxiety over me because he was leaving me all alone, Father departed from this world.

Before he died, Father often said "Father doesn't want to die. Since our house and our clothes have all been burned by the A-bomb, let's both of us go in our rags to the country and be farmers." He said this often.

On the 15th of August Japan finally became a defeated country. Many beggars appeared in front of the station, and thieves and armed bandits have turned up one after the other, and it has become a world where you aren't safe for a minute.

What has caused this sort of thing? It is because of war. If there were no wars such miserable people would never appear and the world would always be a place of piece. In the new Constituion, renunciation of war is determined. Even if it isn't a case of war between one country and another, even inside the country of Japan, in spite of the fact that we are the same kind of people, there is always war going on. As long as this is the case we will not become a peaceful country. In order to build a peaceful country, I believe we must first be considerate of each other.

BEST COPY AVAILABLE

Hiroshima
A Survivor's Story

By Shigeko Sasamori

When the bomb dropped, I was in junior high school, seventh grade. At that time, Hiroshima was so crowded, they had to tear down some of the houses to make wide streets so that we could get out of town in case bombs dropped. So the young students cleaned up the wreckage of the houses by hand, picked up the building material and dumped it into carts—stuff like this. At 8:15 in the morning I had just gotten to the working place with my friend and classmate.

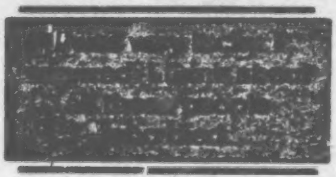
I heard the airplane and I looked up and saw something drop. At the same time—almost at the same time—a strong explosion. I felt it knock me down. The next thing I knew, all was dark, red and gray; it was what you can imagine you see inside of a burning fire, when you open a burning furnace—like that. Red and black and gray all around me.

At that moment I didn't feel any pain, any hurt, nothing. I was so numb, I was so shocked. I just wondered what was going on. I knew a bomb dropped. I thought it dropped on top of my head. In a few minutes, I don't know how long, the fire began to go away. It began to clear and I could see. Sort of like a gray dark afternoon. It was a very clear morning that morning, but it was very dark then. That must have been dust, ashes.

Then I looked around and I could see people moving. And what those people looked like you never could imagine—like nightmares. I thought I had been sent to some other country, another space. People didn't look like people anymore. All their clothes were torn, they were bleeding, their skin hanging off, covered with ashes and dust and hair burnt off. Just incredible. Like a monster. Not running fast, but just barely moving. The faces silent. I didn't hear any sound.

Of course, I didn't know which way to go. I was so lucky I went out, instead of toward the center of the city. I followed the people and went to the river. So many people came, there were people pushing each other into the water. And I was afraid that someone might push me into the water. But I escaped. I was very lucky that way. Also, nothing fell on me. People are under the house, they are not dead, but they can't get out. They scream for help, but who can help? Everybody is hurt. Just incredible.

After I crossed the river, I tried to go to my school on the other side of the mountain. I finally got to the schoolyard. I sat down; then I don't remember when they brought me inside the door. It was days until I was treated. No food. Every once in a while they gave me a little water on my lips. They didn't give me water to drink. I didn't know which was day or which was



night. I dreamed of water, of rivers, of oceans, of fountains, drinking water, swimming in water. I vomited water. Every once in a while I would up and gave my name and address so that people could tell my parents. On the fourth day, I heard my mother calling my name, and I answered her and they took me home.

What a miracle! All those days. My mother went every day, place to place, calling my name, looking all over. On all the streets were dead bodies. She would see a young kid and look at the face, look at the faces, the dead bodies, looking all over. And finally the fourth day she found me. Four days, nothing to eat, so treatment, and one third, more than one third of my body was burnt. I survived. I feel that it really was a miracle.

Of course, when I first saw my face, I couldn't believe it. I felt like ice-cold buckets of water poured into my body. That kind of feeling. I got chilly . . . horrible feeling. Thank God. Time . . . day by day. Time helped.

I was very lucky. They never found my friend. Maybe she went in toward the center; we'll never know. When I came to, myself, she wasn't there. We were so confused, we all looked like different people. Maybe she was there. Maybe I didn't recognize her. I don't know. I think about her now, about all those people who died in the war.

If we make another mistake, start a new war, those people's deaths will mean nothing. They were sacrificed for us and their spirits will be peaceful if we are peaceful. We have to remember, so that our children will not have to suffer those horrible wars.

You don't have to be in a high position, or be extra smart in order to help the world find peace. People who are poor, who are uneducated, they can help us work for peace in the world. All they need is their hearts. Because I am, myself, not an educated person, I'm not a good speaker, I'm not especially trained, just an ordinary, uneducated woman. But I wanted to help and so I tell the world my experiences. People need to be encouraged, because some people are afraid to do things. They think, "I cannot do it myself. A group will do it. By myself I can do nothing." Many people feel that way, I'm sure. But little things are important. It is an old Oriental saying that "If a little dust gets together, it makes a mountain."

Shigeko Sasamori was one of the twenty-five Japanese girls, survivors of the Hiroshima atomic blast, whom Norman Cousins brought to the United States in 1955 for plastic surgery; her story is in his book Present Tense. *She now lives in Los Angeles, practices shiatsu, and works at Cedars-Sinai Hospital as a night nurse caring for newborn babies.*

In the past year Sasamori has become an outspoken proponent of peace, addressing groups and gatherings all over the U.S. She has been through the most terrible of human-made events and yet she tells the tale with a heart free of revenge.

HIROSHIMA
A SURVIVOR'S
STORY

BEST COPY AVAILABLE

Hiroshima
A Survivor's Story

© Orah Moore 1982

"We have to remember, so that our children will not have to suffer"

By Shigeko Sasamori

Shigeko Sasamori was one of the twenty-five Japanese girls, survivors of the Hiroshima atomic blast, whom Norman Cousins brought to the United States in 1955 for plastic surgery; her story is in his book Present Tense. *She now lives in Los Angeles, practices shiatsu, and works at Cedars-Sinai Hospital as a night nurse caring for newborn babies.*

In the past year Sasamori has become an outspoken proponent of peace, addressing groups and gatherings all over the U.S. She has been through the most terrible of human-made events and yet she tells the tale with a heart free of revenge.

When the bomb dropped, I was in junior high school, seventh grade. At that time, Hiroshima was so crowded, they had to tear down some of the houses to make wide streets so that we could get out of town in case bombs dropped. So the young students cleaned up the wreckage of the houses by hand, picked up the building material and dumped it into carts—stuff like this. At 8:15 in the morning I had just gotten to the working place with my friend and classmate.

I heard the airplane and I looked up and saw something drop. At the same time—almost at the same time—a strong explosion. I felt it knock me down. The next thing I knew, all was dark, red and gray; it was what you can imagine you see inside of a burning fire, when you open a burning furnace—like that. Red and black and gray all around me.

At that moment I didn't feel any pain, any hurt, nothing. I was so numb, I was so shocked. I just wondered what was going on. I knew a bomb dropped. I thought it dropped on top of my head. In a few minutes, I don't know how long, the fire began to go away. It began to clear and I could see. Sort of like a gray dark afternoon. It was a very clear morning that morning, but it was very dark then. That must have been dust, ashes.

Then I looked around and I could see people moving. And what those people looked like you never could imagine—like nightmares. I thought I had been sent to some other country, another space. People didn't look like people anymore. All their clothes were torn, they were bleeding, their skin hanging off, covered with ashes and dust and hair burnt off. Just incredible. Like a monster. Not running fast, but just barely moving. The faces silent. I didn't hear any sound.

Of course, I didn't know which way to go. I was so lucky I went out, instead of toward the center of the city. I followed the people and went to the river. So many people came, there were people pushing each other into the water. And I was afraid that someone might push me into the water. But I escaped. I was very lucky that way. Also, nothing fell on me. People are under the house, they are not dead, but they can't get out. They scream for help, but who can help? Everybody is hurt. Just incredible.

Continued on page 87

Adapted, with permission, from an interview in the March 19–25, 1982, edition of L.A. Weekly *(5325 Sunset Blvd., Los Angeles CA 90027; $35/year).* *© 1982 by Los Angeles Weekly, Inc. All rights reserved.*

Activities to help students process "Children of the A-bomb"

1. Give students time to think and react to the two readings by writing privately in journals. If they seem blocked, suggest that they just write single words or short phrases that come to their minds. Then see if there are students willing to share some of their responses.

2. Students can also express concerns raised by the readings by doing watercolor drawings, writing poetry (perhaps haiku), or taking part in other expressive activities (improvisations, mime exercises, playing music, singing, etc.). See the "Using Printed Materials" (Chapter 5) for some poetry-writing ideas.

3. Have students write letters to either Takako or Shijeko expressing how they feel about the stories they read.

4. Students could also write letters to an organization that works with "hibakusha" (survivors of the bombings) in either Japan or the United States. Write to: Nagasaki Appeal Committee, 302 Haruki-cho, Nagasaki, Japan for addresses.

5. Students can collect magazine pictures to create a collage about feelings related to war and peace.

6. Students might want to write to students in Japan (see the "Taking Action" chapter for addresses), or exchange drawings expressing their feelings about war, peace, or their vision of the future with students in Japan.

7. Suggest that students read Sadako and the Thousand Paper Cranes by Eleanor Coerr to a 4th or 5th grade class. Sadako died of leukemia at the age of 12. She was two years old when the bomb was dropped on Hiroshima, and she got leukemia as a result of radiation exposure. When her friend came to visit her in the hospital, she brought Sadako a paper (origami) crane. If Sadako could fold 1000 cranes, her wish to live would come true. Sadako folded 644 cranes. After she died, her schoolmates folded the rest. She is a heroine to the children of Japan.

   The attached sheet describes how to fold the paper cranes. Students could teach younger children (or themselves) to make these cranes. Maybe they could join Japanese children in sending these paper cranes to Hiroshima for Children's Day (May 5).

The Story of the Peace Crane

A Japanese tradition holds that anyone who folds one thousand paper cranes—origami—will have a fervently-held desire fulfilled. Sadako Sasaki, only a young girl when the atom bomb exploded over Hiroshima in 1945, knew of the belief but never had a wish pressing enough to fold the 1000 origami cranes until ten years after the war's end. Then, after a lifetime of normal health, she fell ill with radiation sickness. Her remaining days were spent in a hospital.

From her bed, Sadako set out to fold a thousand origami as a prayer for peace. At first it was easy enough, but as the illness grew worse each fold became an immense labor. When she died in 1956 she had been able to complete only 644. From her deathbed she held up one crane and said in a quiet voice, "I will write peace on your wings and you will fly all over the world."

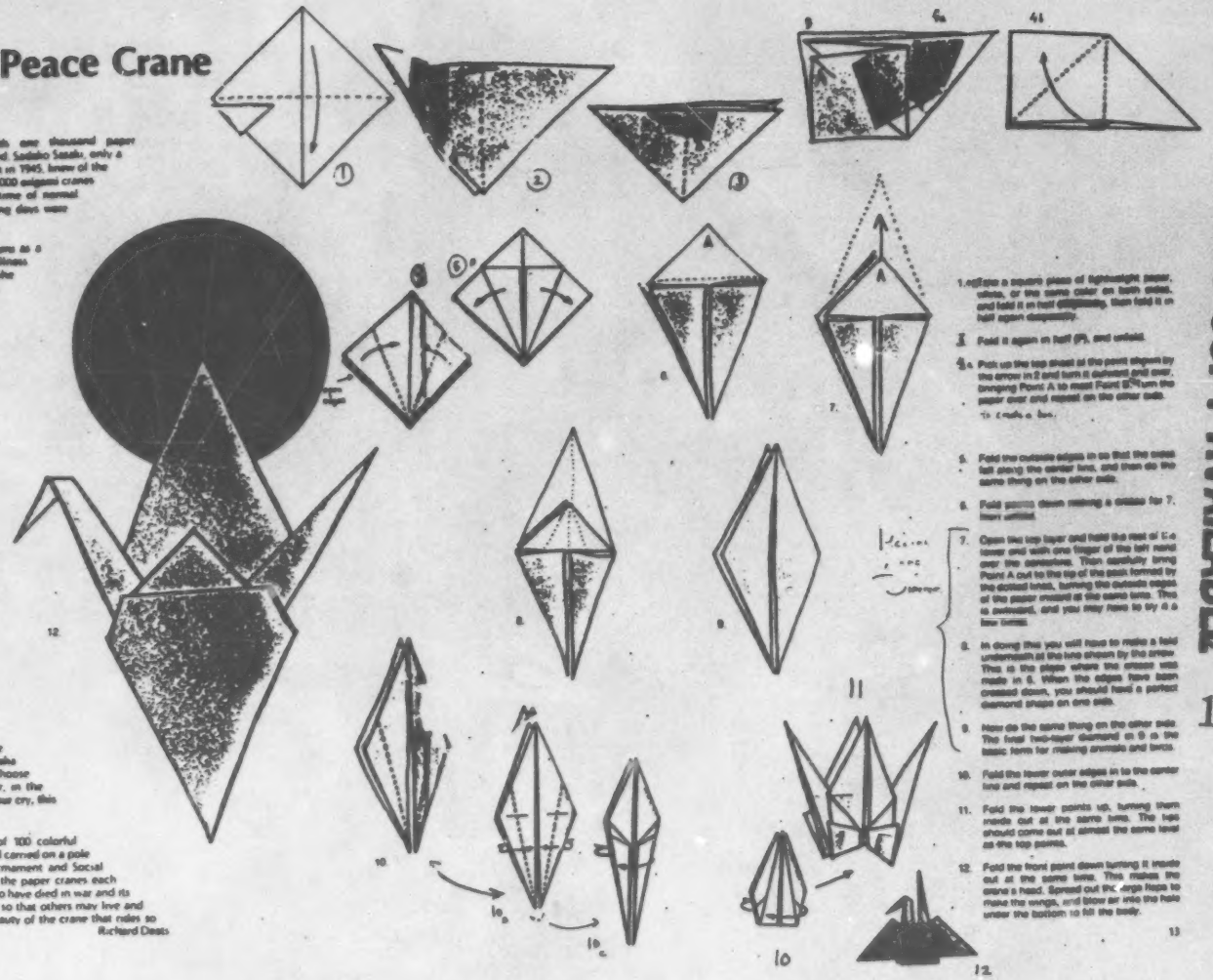
The story of 12-year-old Sadako Sasaki became widely known, much the way the story of Anne Frank became known in Europe and America. Others took up her unfinished task.

Since her death millions upon millions of origami have been folded, especially by the children of Japan beginning in 1958, on Children's Day (May 5). They have come from all parts of Japan to Hiroshima's Peace Park, bringing blizzards of origami up to the tower where a statue of a young girl who died in the bombing stands surrounded by these folded paper prayers. The children mourn the deaths of the atom bomb's victims—still continuing to die of radiation illness three decades after the blast—and vow to join the hibakusha (survivors of atomic war) in building a world that will choose the way of peace. At the foot of the Hiroshima tower, on the midst of the paper cranes, the words are carved: This is our cry, this is our prayer: be establish peace in the world.

Today, in the FOR national office, there is a strand of 100 colorful origami. It is one of ten such strands that were folded and carried on a pole by a young woman in the Continental Walk for Disarmament and Social Justice. After the march, she gave them away. Seeing the paper cranes each day, remembering Sadako Sasaki and all the children who have died in war and its consequences, we feel renewed in our own vow to live so that others may live and that live for each person may find the lightness and beauty of the crane that rides so gracefully on the wind.

Richard Deats

12



1. Fold a square piece of lightweight paper, white, or the same color on both sides, and fold it in half diagonally, then fold it in half again diagonally.
2. Fold it again on half (P), and unfold.
3. Pick up the top sheet at the point shown by the arrow in 2 and turn it outward and over, bringing Point A to meet Point B. Turn the paper over and repeat on the other side.

To create a box:

5. Fold the outside edges in so that the creases fall along the center line, and then do the same thing on the other side.
6. Fold points down making a crease for 7. Then unfold.
7. Open the top layer and hold the rest of the tower and with one finger of the left hand over the creases. Then carefully bring Point A out to the tip of the peak formed by the dotted lines, turning the outside edges of the paper inward at the same time. This is awkward, and you may have to try it a few times.
8. In doing this you will have to make a fold underneath at the line shown by the arrow. This is the place where the crease was made in 6. When the edges have been creased down, you should have a perfect diamond shape on one side.
9. Now do the same thing on the other side. The total two-layer diamond in 9 is the basic form for making animals and birds.
10. Fold the lower outer edges in to the center line and repeat on the other side.
11. Fold the lower points up, turning them inside out at the same time. The tips should come out at almost the same level as the top points.
12. Fold the front point down turning it inside out at the same time. This makes the crane's head. Spread out the large flaps to make the wings, and blow air into the hole under the bottom to fill the body.

13

BEST COPY AVAILABLE

Questions for class discussion after reading "Children of the A-bomb" and doing at least one of the reflective/expressive activities.

1. Which person's experience was most difficult for you to read? Why?

2. Takako mentions the appearance of beggars, thieves, and bandits after the bombing. According to Takako, what is the explanation for their appearance?

3. What was life like for Takako and Shigeko immediately following the explosion?

4. What did Takako and Shigeko learn about the world as a result of experiencing the bombing of Hiroshima?

5. What messages do Takako and Shigeko each leave us with at the end of their stories?

Students may also want to study the decision to drop the bombs on Hiroshima and Nagasaki. Many excellent materials are available for this purpose. Two particularly good sources for junior high students are:

--Linda Rosenweig and Edwin Fenton, "Personal Conflicts in the Modern Era," a filmstrip set published by Guidance Associates in 1977.

--Jonathan Harris, The Amherst Project, Hiroshima: A Study in Science, Politics and the Ethics of Man, published by Addison Wesley.

e. *Mapping Exercise*

Because this exercise makes graphically clear the potentially devastating effects of a nuclear explosion on the environments and families of the students, there is some debate about its appropriateness. Handled sensitively, however, it can also be powerful and informative. After completing the mapping exercise, you will want to be sure to allow students enough time to share reactions and responses. Many students will feel depressed and powerless after realizing that their town or city could be hit by a nuclear warhead. For this reason, you may want to continue the discussion by completing some of the other activities in the guide: bringing in a speaker from the community, doing some of the "taking action" exercises, or beginning a research project on some aspect of the issue.

<u>What would happen if a one megaton bomb dropped in your area</u>?

A megaton is a measure of the explosive power of nuclear weapons. One megaton is explosive force equal to one million tons of TNT. An actual attack could involve one or several bombs, each with an explosive force of up to 20 to 25 megatons. A one megaton bomb is 50 to 100 times the force of the atom bomb which the U.S. dropped on Hiroshima and Nagasaki during World War II.

Obtain one or more large maps of your town and surrounding towns; if possible, one that shows an area of at least 14 miles by 14 miles and includes streets and major landmarks. (Newsstands and drug stores are a good source; free maps from town hall will probably be too small.) Divide into groups of 5 to 10, each group with one map.

On your map, you will be drawing a series of concentric circles surrounding a target area. "Likely targets might be a local military base, industrial plant, research group, power plant, airport, and corporate headquarters."[1]

Choose a target and mark it with a black dot. From the target point draw six concentric circles (six areas of destruction) with the following radii:

.12 miles
.7 miles
1.7 miles
3.0 miles
5.0 miles
7.0 miles

On a separate piece of paper, each of you list/describe the damage you think would occur in the areas enclosed by each of the circles. Compare your responses with others in your group.

Each of you should then be given six "information strips." Read the information on each strip of paper. Decide which radius belongs on each strip and write it in the box in the upper left corner. Verify

your answers with your group. Under "important landmarks" on each strip, list the buildings and public places that are important to you or that you often use: your home, relatives'/friends homes, church or synagogue, town hall, school, library, community center, park, shops, movie theaters.

Share your responses and reactions with others in your group and with the class.

Draw or write a first-person account of what you imagine would happen to you in the event of a real nuclear attack. If you survived, where would you go, how would you feel, how would you respond to others in need, what would happen to you and to others?

Read the article, "Nuclear War's Effect on the Mind." How do you feel about what the author describes? Can you imagine yourself acting in the ways he describes? Why? Why not?

The explosion creates a crater about 3 blocks in diameter and 20 stories deep. Almost total destruction of people and structures.

Important landmarks in this area:

"In one-tenth of a second, people, vehicles, buildings, and thousands of tons of earth are swept into a luminous fireball, with temperatures reaching millions of degrees."[2]

Important landmarks in this area:

---

1. Union of Concerned Scientists, The Threat of Nuclear War: Briefing Manual, p. 60. This mapping exercise was adapted from the manual.

2. Ruth Sivard, World Military and Social Expenditures, 1981.

98% of the people killed by
--flying debris from buildings destroyed by blast pressure and winds up to 300 mph
--massive fires or lethal skin burns from thermal radiation (intense heat given off by the nuclear explosion)
--firestorms (occurring under certain weather conditions) which kill through heat and asphyxiation (fire consumes the oxygen and people suffocate, even in shelters)

Very few structures left standing

Important landmarks in this area:

50% of the people killed from falling buildings, flying debris, fires; 40% injured, half of whom might ultimately die.

Very strong structures might survive

Important landmarks in this area:

50% of the people killed or injured

Some commercial structures, a few residents survive; many destroyed by fire, most homes blown out or leveled.

Gasoline storage tanks explode; intense heat from the fireball causes many combustible materials to burst into flames.

Important landmarks in this area:

Most buildings damaged.

25% of the people dead from injuries or burns.

Most people in the open receive third or second degree burns from thermal radiation or are blinded by the flash.

Most of the injured get little or no medical treatment because hospitals destroyed, doctors and nurses killed or injured, little medicine, food, or water that is not contaminated.

Many develop radiation sickness from fallout (radioactive particles of soil and debris from the explosion are spread over a large area). Symptoms are vomiting, diarrhea, anemia, loss of hair, increased susceptibility to infection, death (in severe cases).

Important landmarks in this area:

Expand the map beyond your community and imagine the long-term consequences of an all-out nuclear war.

"Winds would carry deadly fallout to most parts of the world. Survivors of radiation sickness would suffer from permanent emaciation, crippling and constant pain. Damage to reproductive organs would result in sterility or genetic defects in offspring. Cancer is also likely to develop...The rapid production of nitrous oxide would destroy much of the ozone layer that protects us from the sun's ultraviolet rays. People could stay outdoors only for short periods. Many crops could not grow. Genetic damage and mutations could cause new kinds of diseases and world-wide epidemics. Severe ecological imbalance and drastic changes in climate would take place."[1]

---

1. Kitty C. Mattes, A Citizen's Guide to the Arms Race, 1981.

The format of this mapping exercise was adapted from the AFSC, "New Mapping Kit." The information was compiled from "The New Mapping Kit," A Citizen's Guide to the Arms Race, and World Military and Social Expenditures, Ground Zero, Nuclear War: What's In It for You?, and Crossroads: Quality of Life in a Nuclear World, Jobs with Peace.

Nuclear War's Effect on The Mind

By Robert Jay Lifton and Kai Erikson

NEW HAVEN — "Scenarios" about fighting, recovering from, or even "winning" a nuclear war tend to be remarkably vague about the psychological condition of survivors.

Some commentators simply assume that survivors will remain stoic and begin to rebuild from the ruins in a calm, disciplined way. Others seem to attribute that rebuilding to a mysterious, unseen hand. Usually absent is a reasoned estimate, on the basis of what experience we have, of how people might actually be expected to behave.

Recently, physicians and other scientists have been making careful projections of the effects of nuclear war, and all raise severe doubts about general claims of recovery.

A 20-megaton bomb, for instance, if detonated over New York City, Chicago, or Leningrad, would vaporize, crush, incinerate, or burn to death almost every person within a radius of five or six miles from the center of the blast — two million people, perhaps. Within a radius of 20 miles, a million more or so would either die instantly or would suffer wounds from which they could not recover. If the bomb exploded on the ground, countless others who live miles away, far beyond the reach of the initial blast and searing heat wave, would be sentenced to a lingering death as radioactive fallout drifted quietly down into people, buildings, water and food supplies, and the earth itself.

But that picture, harsh as it seems, is inadequate even for a limited nuclear war and certainly for a full-scale one.

New York City, say, would be hit by many warheads, as would other cities, industrial centers, and military targets — hundreds of warheads, maybe thousands.

One has to try to imagine 100 million or more people dead, and lethal amounts of radioactivity scattered over huge areas.

And the survivors? Would they panic? Would they help one another? What would they feel and do?

In Hiroshima, survivors not only expected that they too would soon die, they had a sense that *everyone* was dying, that "the world is ending." Rather than panic, the scene was one of slow motion — of people moving gradually away from the center of the destruction, but dully and almost without purpose. They were, as one among them put it, "so broken and confused that they moved and behaved like automatons. . . . a people who walked in the realm of dreams." Some tried to do something to help others, but most felt themselves to be so much part of a dead world that, as another remembered, they were "not really alive."

The key to that vague behavior was a closing off of the mind so that no more horror could enter it. People witnessed the most grotesque forms of death and dying all around them but felt nothing. A profound blandness and insensitivity — a "paralysis of the mind" — seemed to take hold in everyone. People saw what was happening and were able to describe it later in sharp detail, but their minds, they said, were numbed.

Hiroshima and Nagasaki, however, can provide us with no more than a hint of what would happen in the event of nuclear war.

A single weapon today can have the power of 1,000 Hiroshima bombs, and we have to be able to imagine 1,000 of those exploding in the space of a few minutes. Moreover, in the case of Hiroshima and Nagasaki — and this is absolutely crucial — there was still a functioning outside world to provide help.

In a nuclear war, the process of psychic numbing may well be so extreme as to become irreversible.

Imagine the familiar landscape turning suddenly into a sea of destruction: everywhere smoldering banks of debris; everywhere the sights and sounds and smells of death. Imagine that the other survivors are wandering about with festering wounds, broken limbs, and bodies so badly burned that their features appear to be melting and their flesh is peeling away in great raw folds. Imagine — on the generous assumption that your children are alive at all — that you have no way of knowing whether the radiation they have been exposed to has already doomed them.

The suddenness and the sheer ferocity of such a scene would not give survivors any chance to mobilize the usual forms of psychological defense. The normal human response to mass death and profound horror is not rage or depression or panic or mourning or even fear: It is a kind of mental anesthetization that interferes with both judgment and compassion for other people.

In even minor disasters, the mind becomes immobilized, if only for a moment. But in the event of a nuclear attack, the immobilization may reach the point where the psyche is no longer connected to its own past and is, for all practical purposes, severed from the social forms from which it drew strength and a sense of humanity. The

Robert Jay Lifton, M.D., is author of "Death in Life: Survivors of Hiroshima," and "The Broken Connection: On Death and the Continuity of Life." Kai Erikson, professor of sociology at Yale University and editor of The Yale Review, is author of "Everything in Its Path: Destruction of Community in the Buffalo Creek Flood."

THE NEW YORK TIMES, MONDAY, MARCH 13, 1989

mind would, then, be shut down altogether.

The resulting scene might very well resemble what we usually can only imagine as science fiction. The landscape is almost moon-like, spare and quiet, and the survivors who root among the ruins seem to have lost contact with one another, not to mention the ability to form cooperating groups and to offer warmth and solace to people around them.

In every catastrophe for which we have adequate records, survivors emerge from the debris with the feeling that they are (to use the anthropologist Anthony Wallace's words) "naked and alone . . . in a terrifying wilderness of ruins."

In most cases — and this, too, is well-recorded in the literature of disaster — that sense of isolation quickly disappears with the realization that the rest of the world is still intact. The disaster, it turns out, is local, confined, bounded. Out there beyond the peripheries of the affected zone are other people — relatives, neighbors, countrymen — who bring blankets and warm coffee, medicines and ambulances. The larger human community is gathering its resources to attend to a wound on its flank, and survivors respond to the attention and the caring with the reassuring feeling that there is life beyond the ruins, after all. That sense of communion, that perception that the textures of social existence remain more or less whole, is a very important part of the healing that follows.

None of that will happen in nuclear war.

There will be no surrounding human community, no undamaged world out there to count on.

No one will come in to nurse the wounded or carry them off to hospitals. There will be no hospitals, no morphine, no antibiotics.

There will be no succor outside — no infusion of the vitality, the confidence in the continuity of life, that disaster victims have always needed so desperately.

Rather, survivors will remain in a deadened state, either alone or among others like themselves, largely without hope and vaguely aware that everyone and everything that once mattered to them has been destroyed.

Thus, survivors would be experiencing not only the most extreme forms of individual trauma imaginable but an equally severe form of collective trauma stemming from a rupture of the patterns of social existence.

Virtually no survivors will be able to enact that most fundamental of all human rituals, burying their own dead.

The bonds that link people in connecting groups will be badly torn, in most cases irreparably, and their behavior is likely to become muted and accompanied by suspiciousness and extremely primitive forms of thought and action.

Under these conditions, such simple tasks as acquiring food and maintaining shelter would remain formidable for weeks and months, even years. And the bands of survivors would be further reduced not only by starvation but also by continuing exposure to radiation and by virulent epidemics.

For those who manage to stay alive, the effects of radiation may interfere with their capacity to reproduce at all or their capacity to give birth to anything other than grossly deformed infants. But few indeed would have to face that prospect.

The question so often asked, "Would the survivors envy the dead?", may turn out to have a simple answer. No, they would be incapable of such feelings. They would not so much envy as, inwardly and outwardly, resemble the dead.

Reprinted with permission from *The New York Times*, Monday, March 15, 1982.

PROMOTING ENDURING PEACE
P.O. Box 103, Woodmont, Connecticut 06460
Telephone (203) 878-4769

Additional copies FREE except for postage

Promoting Enduring Peace, Inc. does not advocate or express opinions on legislative matters. The responsibility for statements of fact and opinion in the publications or material distributed rests solely with the author.

REPRINTED BY THE ADVOCATE PRESS, NEW HAVEN, CT.

To the teacher:

You might need to spend time reading maps with the students and using an improvised string compass (to cover a wide enough radius).

Additional reading: Ground Zero, Nuclear War: What's In It for You?, (p. 142-153) is "a fictionalized account of what might occur in a small American city remote from any strategic target in the aftermath of a full-scale nuclear attack on the United States...It has been constructed from a variety of things that we know something about." (p. 142)

Related film: The Last Epidemic, "Shows what the after-effects of a 20 megaton bomb would be on San Francisco. Uses footage from U.S. government films and footage from Hiroshima to drive home its point. Ends with an interview with a survivor from Hiroshima." (AFSC film listing) Available from the American Friends Service Committee or Physicians for Social Responsibility (See Chapter IV, Resources.)

d. Envisioning a Future

Because students will spend some time thinking about the disastrous effects of a possible nuclear war, it might be a good idea, for the purposing of emphasizing that such a war is not inevitable, to consider the alternatives, and to think about an ideal world. This can be done individually, or as a class:

-- Have students write in journals a paragraph or list of statements about what they would like the world to be like when they become adults. Encourage them not to censor their ideas as impossible or too idealistic. The purpose is to create a vision.

-- Ask students to share ideas (with no critical commentary or suggestions) and list all ideas on the blackboard. Then discuss: Is it possible to create such a society? or divide students into small groups and ask them to come to consensus on one goal they feel is important.

-- Ask students to formulate some steps that might be useful in moving toward that goal.

-- Have one student from each group record the discussion and report back to the entire class.

-- It might be a good idea to follow up with a discussion about the importance/unimportance of visions. Examples help. John Kennedy said with no real plan as to how, that we would have someone on the moon in a decade. There was much discussion both pro and con which began people thinking about landing someone on the moon. That vision became a reality.

BEST COPY AVAILABLE

ALTERNATIVES:

-- Begin with a class brainstorm of ideas (again, no criticism of "way out" goals) and then have students proceed with journals.

-- Begin by using John Lennon's song "Imagine", or end with it. Discuss his vision.

-- Read Martin Luther King's "I Have a Dream..." speech. What was his vision?

It would also be possible to assign a final essay as a result of the discussion and journal writing exercises. "Moving toward a world without nuclear weapons...or poverty...or hunger...or war" are all potential topics. A more general topic, such as "The world as I would like it to be," would also work well.

7. Taking Action

a. Practical Exercise on Taking Action

When students start to become aware of the dangers of nuclear war, they can become paralyzed if they feel helpless to do anything about it. These exercises help to break through any paralysis by showing how they can take action. They are not necessarily meant to get students to take action but rather to help them think through what is involved in doing so.

Have the class choose a hypothetical school or home issue to work with:

You want permission to use the family car
You want permission to stay out later at night.
You want a school student-run snack bar, student lounge, or open-campus policy.

Have students suggest ideas about what they might DO to get what they want. Put all their ideas on the board. Discuss what each action involves in terms of:

time and effort
possible compromises you might have to make in exchange for what you want
possible negative effects (punishment, people get angry at you)
possible positive effects (you get what you want, people appreciate your action)
problems that might come up (costs)

b. *Possible actions on nuclear arms*

The list on the following pages gives 20 ideas on actions people can take to promote their points of view on the nuclear arms issue. Before giving it to students, have them brainstorm first on their own list of ideas. Then pass out this list and see where the two lists match. If any of their ideas aren't on the list, add them.

Follow-up: Have each student check off those actions they would be most likely to take. Have a class discussion on what several students' choices involve (time and effort, negative and positive effects, problems that might come up).

1. Learning can be action. Get informed about nuclear arms. Read articles, watch TV programs, listen to speakers. Learn the arguments on both sides. Learn 10 significant facts that you can use in a discussion.

2. Make a list of your interests. Think about how you could use your interests to take action on the issue of nuclear arms.

3. Discuss the issue of nuclear arms with your friends. Discuss it with your family. Find out what facts and opinions people have and tell them your opinions and facts.

4. Join a group at school, in your city, or a national group that works on the issue. If you can't find one, start one.

> On May 18 this year, five young women between the ages of 12 and 20 got together to talk about how to get other kids involved in the effort to stop the nuclear arms race.
>
> The result was a new organization, the Children's Campaign for Nuclear Disarmament, and a plan to get children to write to the President, asking him to take action.
>
> They drafted a brief statement, warning of the growing threat of nuclear war and noting that "our leaders are making decisions that affect us, as children, more than anyone else."
>
> They sent out 12,000 copies of that statement to peace groups, churches, newspapers and individuals across the country, asking that letters to the President be mailed to them in Plainfield in time for their October 17 trip to Washington.
>
> The President, says Susan Rabin, one of the campaign's founders, was too busy to meet with a bunch of children. The Vice President was going to be out of town, and even the White House youth liason officer, who was to accept the letters Saturday, cancelled out at the last minute.

But the letters were read in front of the White House, and then delivered by the children to the White House mail room.

Children's Campaign for Nuclear Disarmament
RFD 1
Box 550
Plainfield VT 05667

5. Write a letter to your school or town newspaper on your opinions. Write your town government, your State and Federal representatives asking them to take action on the issue.

Letter in a local newspaper in Newton, Massachusetts

To the editor:

In the past years, I have come to the conclusion that I, a 17 year old girl, am as mature or more so than all the other "grown-ups" I have encountered in my life. Not only is this truth tragic but most of all, it is extremely scary. We single out mere mortals to enforce laws made by mere mortals. We entrust our lives to these people who experience greed, jealousy, love, hate...same as the rest of us.

If we can realize that all people have human instincts, we then can conclude that our leaders can make mistakes. Therefore, we do not need to fear voicing our opinions and speaking out.

I am speaking out. In fact, I am shouting out. Fear and helplessness overwhelms me when I read articles of the possibility of nuclear war.

6. Wear a button, bumper sticker, or T-shirt that states where you stand on nuclear arms. If you can't find one you like, make one.

7. With other people your age, hold a car wash or bake sale to raise money to support groups that agree with you on the issue.

8. Get a group at school together to plan a school-wide "Teach-in" on the subject. Bring in speakers on both sides, have your school order films to show, pass out photo-copied information sheets.

9. Attend rallies that are being held in your area. Raise money to send a group of students to rallies or marches in other areas.

10. Go with a group of students to your principal, superintendent, PTA, or School Board to ask that the school give students information about nuclear weapons through social studies classes, assemblies, or a whole course on the subject. Bring a list of specific questions you would want this teaching to answer.

11. Take advantage of class assignments to debate nuclear arms to write an essay on the subject, or a poem or research paper. Ask your teachers in art, science, English, and other subjects to give assignments about the arms race. Ask your teachers to "publish" any writing that results from these assignments by duplicating copies for the whole class, by posting them on a wall, by submitting them to school or local newspapers -- even The Congressional Record (through your Congressional representative).

12. Ask your school and town libraries to buy a full collection of books on nuclear arms so that everybody can stay informed. Ask them to display the books they buy. Volunteer to do a display on the subject for them.

13. Plan and stage an "event" that will capture people's interest and imagination, and call the media to get them to cover it. Ideas: an outdoor street drama, a musical event, a public recitation of "nuclear numbers" (See "A-bomb Almanac" in Using Printed Materials, Section 5).

14. Compose a song that expresses how you feel about nuclear weapons. Get a group together and make a big banner that you can take to rallies.

15. Take a poll of students in your school, or of people in your town to find out their thoughts and feelings on nuclear weapons. Send your results to the school or town newspaper.

16. Prepare an art display on the subject and ask to have it put up in your school, in a bank, at the library, or city hall.

17. Form a group that gets together each week to read articles on the subject. Consider both sides. Think of ways to tell other people what you learned.

18. Ask your school to help you find a group that sets up pen-pals. Ask to have a pen-pal in a nuclear-weapons producing country, preferably Russia. Exchange descriptions of your daily life, your values, and your concerns about war.

    a. International Friendship League
    22 Batterymarch Street
    Boston MA 02109
    (617) 523-4273

    An international correspondence society to match Americans of all ages with pen-pals in different countries and territories. $3.00 fee for people below age 20 to join.

b. World Pen Pals
1690 Como Avenue
St. Paul MN 55108
(612) 647-9566

For people ages 12-20 in the United States and 150 countries and territories who exchange letters. $1.00 for individuals, special group rates.

c. The following excerpts are part of a student letter writing project to the Soviet Citizens (taken from Decision Making In a Nuclear Age by E. Lewis and R. Snow.) Contact: Facing History and Ourselves Project, 25 Kennard Road, Brookline MA 02146.

We don't hear very good things about the Soviet Union here. Just the bad things, like the invasion of Afghanistan, or the possible invasion of Poland. We only know about the government -- not the people. While writing this letter, I tried to see the Russians as real people; people who have hopes, worries, fears. I hope that as you are reading this letter, you will try to do the same for me -- see me as a person, not a country, or an event. There are bad people in the U.S. But there are plenty of good ones too.

As for my future, it's hard to say. Will I marry? Will I have children? Will I devote my life to a profession or something I strongly believe in? I can't say. It's hard for me to seriously think of the future, when there is the terifying reality that I and all of those around me may not even exist in the future. I am, of course, referring to nuclear war. It is overwhelming to me, as it must be to you, that every human being on this planet must live each day to its fullest, because the next day may never come.

19. Find out about your town's national civil disaster preparedness plan. Ask them to hold a public hearing. Speak out about your opinions on the usefulness of the plan.

20. Write your local cable television station or radio station or the national stations and ask them to do more programming on the subject. Tell them what you want to know more about specifically.

c. *Writing Political Action Letters*

1. Spell names and addresses correctly.

2. Be brief. Don't use more than one page.

3. Write clearly or type.

4. Get to your point right away. Be specific about your topic and what you want the person to do about it (I support/oppose the state civil defense plan and urge you to vote for/against it).

5. Back up your opinion with reasons, especially about how the issue affects you personally. (Since our town is just ten miles from a strategic military site, evacuation plans and shelters will do no good. I am a student and would rather see the money go for student loans.)

6. Don't insult, name-call, threaten or demand. None of these work. Reasons and personal experiences do.

7. Add some praise if you can. (I appreciate what you are doing to get the arms freeze issue on the ballot.)

8. End with a question to give the person a reason to answer your letter. (I want to know your position on this proposal. How do you propose to help students get educational loan funds?)

Put your name, address and date on upper right.	20 Rollins St. Bridgewater MA 02153 October 28, 1982
Write name and address of person you are writing on the left.	Senator X_____ Senate Office Building Washington DC 20510
Dear _____	Dear Senator X_____,
Name your topic.	I am writing to you about the _____ bill.
Give your opinion and your reasons for it.	I am opposed to it and urge you to vote it down. I now have a job at _____ and am going to school at night. This bill may cause the business I work for to cut back. Without the income from my job, I will have to drop out of school. Without an education, I wil barely be able to support myself on minimum wage jobs.
End with praise and a request or question.	Please tell me what your position is, especially considering the present tight job market. I appreciate receiving your informative newsletter.
Sincerely	Sincerely, *Lee McDonald*
Your name in script.	

8. Research Projects

This section includes suggestions for longer research projects and topics that require extended study. You may want to do one of these projects with your entire class, or allow an individual student to research one of the topics as an independent study project. Five of the projects are fully developed and described in detail here; they are followed by some more general topics for possible research. In all cases, you will want to discuss the process of collecting data with students, and remind them to look critically at their information sources (the exercises on inflammatory words and distorting with statistics might be useful here).

a. Comparing the Cold War Era With the 1980's

Have students research the history of public concern about the arms race and the threat of nuclear war by looking specifically at the decade between the Korean War and Vietnam, 1955-1965. The project has two parts -- library research, and an oral history project.

Library research: Have students use the library to look through:

-- old newspapers
-- books published during those years on the subject
-- both left and right wing journals (the Sept./Oct. 1982 issue of Mother Jones contains a first person recollection entitled "Cloakroom Nightmares.")
-- popular magazines of the time (particularly Life magazine)
-- government newsreels and films (if you have access to these)

Ask them to focus on the following questions:

1. How strong was the disarmament movement during that time?
2. What were the concerns of the people who were involved?
3. What were some of the counter-arguments?
4. Why did the concern seem to die out?
5. What were the terms and phrases, and who were the key people, mentioned most often?

Students might need some guide words to look for:

--commies	--fall-out shelters	--cold war
--strontium-90	--atom bomb, A-bomb	--atomic war
--radioactive fall-out	--Rosenberg trials	--McCarthyism
--above-ground testing	--Cuban missile crisis	--red-baiting

Remember that you are asking students to use primary as well as secondary sources, as that many of the primary sources will be on microfilm. Be sure students know how to use a microfilm reader, and encourage them to bring photocopies of their sources back with them. You can then collect these in a classroom file for others to use.

Oral History: Have students talk with their parents and other adults who grew up during the 1950s and early '60s in order to gather stories, feelings, and opinions from them about what they remember about the nuclear threat.

If students are going to collect oral histories, they may need some preparation:

1. Learning to use a tape recorder.

2. Drawing up a "content outline" (i.e., an outline of subjects they want to make sure they cover), from which students can brainstorm interview questions. The library research students have already done will be useful for doing this.

3. Brainstorming good questions. Students need to learn to phrase open-ended questions. Remind students that questions that can be answered with a simple "yes" or "no" do not elicit the stories, feelings, opinions, and recollections that make oral histories so interesting.

Follow-up:

Use all of the information gathered for student discussions, presentations, or written papers. Be sure to leave time at the end of each part for students to share what they've learned in some form. At the conclusion of the project, ask students the following questions:

1. Why do you think the concern about the threat of nuclear war has surfaced again?

2. What do you think will happen as a result of this renewed interest?

3. What can we learn from the history of the disarmament movement?

4. What are the similarities and differences between the concerns prevalent in the time period we've studied, and the concerns expressed today?

5. Do you think that history repeats itself, and that we inevitably get "trapped in historical memories" -- or can we as individuals affect the course of history?

Finally, students could also compare their own feelings about the Soviet Union, nuclear war, the bomb, etc. with their parents' feelings and points of view.

b. *Nuclear Arms: Two Points of View*

1. Have your class brainstorm their own list of arguments on both sides of the nuclear arms issue. Write all their arguments down in two columns on the board or a large piece of paper. You'll be surprised how many arguments they can think of once they get going, although they may not have specific facts or names. Give them topic ideas: jobs, who's ahead, civil defense, etc.

2. Give students an article that has arguments on both sides (Time or Newsweek are good) and have them read to find new arguments.

3. Have students collect more arguments from parents, friends.

4. Have students research arguments from magazines on both sides of the issue. Magazines with a generally pro-nuclear build-up stand:

   National Review
   Reader's Digest
   Conservative Digest
   US News and World Report
   Commentary

   Magazines with generally anti-nuclear build-up stand:

   The Nation
   Mother Jones (the Sept./Oct. 1982 issue is a special disarmament issue)
   Progressive
   Environment
   Bulletin of Atomic Scientists

5. After students have made their own class list of arguments, give them copies of our arguments list. Have students note which arguments they didn't think of.

6. Have each student underline those arguments on both sides which they think are strongest.

7. Each student can choose one argument and look in magazines, news articles, or books for facts that would prove or disprove it.

8. Use the list as a basis for a debate.

9. Have students show the list to three other people and have them mark the strongest arguments on BOTH sides. Have students share and analyze their data.

Note: the arguments list that follows has been gleaned from newspaper and magazine articles. It is not meant to represent the arguments in any comprehensive way, but is meant to be a good start for further research.

USSR is ahead of us in nuclear weapons, "a definite margin of superiority," said President Reagan. There is a window of vulnerability because USSR has more missiles, heavier warheads (more megatonnage), and spends more money than we do on their military.

USA and USSR have a rough parity of arms. USSR has more missiles but we have more warheads on ours. Their warheads have more explosive power but ours are more accurate. They have more land-based missiles but we chose to put more missiles on submarines which are invulnerable to attack. If you include allies, US and NATO have spent more than USSR plus Warsaw Pact. They've been spending more just to catch up to us. We are equal now, or even a little ahead of them.

Many other countries will soon have nuclear arms, some of them unstable countries. USA must have superior weapons in order to limit the proliferation of weapons and to control their use.

Other countries will follow the lead of USA restraints on nuclear weapons, especially if both the USA and USSR cut back. USA and USSR can refuse economic and nuclear technology aid as a way to pressure other countries NOT to go into nuclear weaponry.

Nuclear technology is here to stay, so we will just have to live with it. You can't turn back the clock and reject new technical advances.

Just because a technological advance exists doesn't mean we have to use it. Nerve gas was used in World War I but then outlawed internationally and not used in World War II. Germ and chemical warfare were also outlawed.

People who want a freeze are being too emotional, hysterical. No one wants a war and everyone knows it would be horrible. But we must calmly face the risk and not panic.

There's nothing wrong with emotion if it is based on a clear danger. Emotion can be a stimulus to taking action. To calmly continue the arms build-up is to deny real danger.

There has always been war. It is a part of human nature. It is unrealistic to try to get rid of it.

Just because there has always been war, does not mean there must always be one. We can become more civilized. We can negotiate instead of fight out our conflicts. Slavery is now considered unnatural but abolitionists were once considered idealistic for wanting to get rid of a "natural part of life".

USSR has a geopolitical advantage in Europe. It can easily invade NATO countries where it is.

USSR is at a geopolitical disadvantage in Europe. Its border is too long to defend against attack. It is encircled by NATO bases in England, France, Greece, Turkey, and Japan.

USSR is more willing to go to war than we are. The government is more willing to sacrifice its people than we are.

Russia has experienced invasion by outside forces (which USA never has) three times in this century. World War I, the German Nazi invasion in World War II, and in 1920. In World War II, 20 million Russians died and 73,000 villages were destroyed. It never wants another war and would not risk one easily. It sees the plan to put nuclear weapons in NATO country Germany as arming its former enemy.

The USSR is aggressive and will try to take over other countries if we don't have enough nuclear weapons to deter them. They have already taken over Hungary, Czechoslovakia, Afghanistan, and Poland.

The USSR is no more aggressive than USA. Both countries have taken military action to insure countries close by will not threaten them. USA has invaded Cuba and Vietnam. CIA has engineered coups in Iran, Chile, and Guatemala.

The best defense is a good offense. Building a strong US weapons system is the best guarantee of peace, since the USSR then won't dare go to war. If the USSR is ahead, it will be more likely to start a war.

Nuclear weapons make us less, not more secure. The weapons build-up makes both countries feel threatened and more likely to attack each other first. It is time to stop the race now, and start cutting back. Even with cutbacks, each has enough weapons to deter the other from war.

Better Dead than Red. It is better to risk nuclear war than to risk the possibility that USSR might invade us and force us to become Communists. USSR is trying to take over the world.

The USSR accepts the USA as a fact. It does not want to invade us. It just wants to be able to exist itself.

Nuclear war won't necessarily mean all-out war. Limited nuclear war is possible. A war in the European theater might not spread to the USA. We could have a protracted war (long-term) that would only gradually escalate, giving time for negotiations to go on.

Limited and protracted wars are dangerous illusions. It is more realistic to realize any nuclear exchange would escalate immediately into all-out war destroying both countries completely.

The weapons industry provides a lot of jobs for people. An arms freeze would cause a lot of unemployment across the country.

America needs butter not guns. The government is cutting funds for things people need (health, education, welfare) and putting them all into arms. The arms industry is inflationary, and it drains our best brains: 50% of our scientists and engineers have jobs in the defense industry. Meanwhile, Japan's technology is ahead and USA has the lowest productivity of the industrialized nations. Weapons industry jobs are for highly educated and specialized technicians, not for production workers. A domestic economy provides more jobs than a defense economy.

Demonstrations against nuclear weapons weakens USA's negotiating power. USSR sees our citizens pushing our government for disarmament and will take advantage of that at the bargaining table.

The basis of negotiations should be the danger of mutual annihilation, so citizen pressures don't weaken USA's position but strengthen the likelihood of safety for both Russians and Americans.

USA has sworn to protect our NATO allies. NATO's conventional forces in Europe are inferior to the Warsaw Pact's without nuclear arms to back them up. USSR forces could easily invade Europe by land without the "nuclear deterrent".

USSR isn't interested in invading NATO countries, even without a nuclear threat. They would meet too much internal and external opposition -- they are surrounded by NATO airbases. The other countries they invaded (Poland, Afghanistan, Czechoslovakia) already had communist governments in place.

Russia listens only to force. They backed out of putting nuclear missiles in Cuba only when we threatened them. Our threats also worked to make them back down in Korea, and on the Berlin Blockade.

Cuban missile crisis showed both the USA and USSR how dangerous force is in a nuclear age. Within a year after the incident they agreed to a Hotline and a Limited Test Ban Treaty.

A freeze now would only lock in the Soviet's advantage in defense. We must catch up to them and then negotiate from a position of strength. Once our Pershing II missiles are in Europe, our Trident missiles are on our submarines, and our cruise missiles are in the air, then we can negotiate.

The government has classified facts and experts who are in the best position to know what is best for the country. Leave it to the experts; it is their job. We voted in the government, now let it do its job.

-54F-

You can't trust the Russians. They secretly tried to put missiles in Cuba. They used chemical warfare in Cambodia and Afghanistan and still deny it. They might be cheating on present treaties and they could cheat on future treaties unless there are on-site inspections.

People who say the world will end if there were a nuclear war are alarmists. The ecology of the earth, for instance, could return to normal in 20 years after a nuclear war.

Now, when USA and USSR have a rough parity in arms is the time to negotiate. If we get ahead, USSR won't want to negotiate. Trident, Pershing II, and cruise missiles are so fast, accurate and invulnerable, that they actually invite USSR to strike first. Also, the Pershing II missiles we will put in Europe in 1983 take only six minutes (compared to 30 minutes of previous missiles) to reach USSR heartland. They leave no reaction time to check if an alert was an error. USSR will put its missiles on "hair-trigger" alert and may be tempted to try a first-strike. Cruise missiles can escape radar and so may be equally destabilizing.

Nuclear arms decisions are too important to leave up to governmental officials, who can become isolated from the people and who can be pressured by big business. The government that we elected should listen to what we want them to do, and should give us all the facts so we can decide what is right. If we could die in a nuclear war, we have a right to make decisions about nuclear war.

There is no proof that USSR has cheated on any treaty, except for the prohibition against chemical warfare, which USA violated too by using Agent Orange and Napalm in Vietnam. Our spy satellites and radar can spot any new missiles. Small scale cheating would be insignificant.

There is no way to know if the earth would survive multiple detonations which might destroy the ozone layer that protects people, plants, and animals from the sun's rays. All people and animals might go blind if the ozone layer is destroyed. We have no right to endanger the entire species and earth.

Even if the Russian people want to end the nuclear arms race with USA, their totalitarian government won't listen to them. USSR allows no freedom of the press or demonstrations. They arrest dissenters. It is useless to think that citizens who want disarmament can influence their leaders.

The USSR may prohibit direct protest but does know its people are discontent when they strike (as in Poland) for better living conditions, or form illegal peace groups (as in Russia). Also, the Communist Party does have debates and voting; the country is not completely totalitarian.

There are adequate safeguards to insure there will be no accidental nuclear war. Nuclear bombs have existed for thirty years now and there has never been a single accidental major missile firing yet. The USSR/USA hotline will prevent any accidental firing to turn into an unintentional all-out war.

Nuclear war could easily start because of human error, malfunctioning, or poor communication. There have been several false alarms already. (A new radar system mistook the rising of the moon for a Soviet attack in the mid-60s. Practice tape left on computer announced a Soviet attack in 1979.) The next error could start a nuclear war.

No one person, the President included, can send missiles on their way simply by pushing a button; several high officials are involved in the procedure.

An unstable president of one of the nuclear powers could start a war in a time of stress. Terrorists could steal a bomb and threaten the world with it.

-88-

USSR's no first strike policy announcement is just talk. If they sat down to negotiate on weapons, their negotiations would be all talk too. They will just use negotiations for self-serving propaganda.

The USSR is willing to negotiate; it has already signed a dozen treaties and has not violated any of them including SALT II which the USA never ratified. USSR has agreed in these treaties not to put nuclear weapons or wastes in seabeds, outer space, or the Antarctic, and not to test bombs in the atmosphere or large bombs underground. They have already announced a no first-strike policy which we have refused to do.

We have restrained ourselves for a decade while the USSR caught up. We were foolish to do so, like the British who didn't believe the Germans were aggressive and so did not build up their own military forces before World War II. Their policy of appeasement caused many deaths.

America has escalated the arms race at every point: we introduced the first atomic bomb, hydrogen bomb, nuclear subs, ICBMs, multiple warheads.

200

A nuclear war is survivable. If civil defense plans are fully implemented and US deaths could be kept at 20 million, we could recover from a nuclear exchange. If our command and control systems and a percentage of our industry survived, we could prevail. If USSR has better civil defense than we do, however, it will be more willing to risk war. We must think the unthinkable and prepare ourselves for the possibility of war.

Civil defense and survivability are dangerous illusions. The death, devastation and suffering would be so great that the living would envy the dead. Civil defense plans could not be implemented. They just make us think a nuclear war is acceptable and risk starting one.

Without nuclear weapons, our country will have to reintroduce the draft, triple our armed forces, and put the country's economy on a war-time footing, according to former Secretary of State Alexander Haig.

America's volunteer, professional army and non-nuclear conventional weapons are all that is needed to fight USSR invasions of a country we are obliged by treaty to defend.

c. *Looking at Civil Defense*

Begin, or continue, your dialogue about nuclear issues by examining your city or town's civil defense plans. After obtaining the plans (this is a good phone call for a student in your class to make), refer to the section on using community resources, and try to find speakers with opposing viewpoints on the civil defense issue to come to your classroom on successive days. Students could then research articles written in the past year about the civil defense debate and Congressional hearings on the topic at the federal level by using the Reader's Guide to Periodic Literature. (See "Using Printed Materials," Section 5 for the annotations of articles that have appeared in the New York Times on civil defense.)

Questions which could be explored are:

1. Why do proponents advocate a strong civil defense plan for the nation?

2. What is the Soviet plan like? Do the Soviet people think it will work?

3. What is a limited nuclear war? What would life be like after a limited war?

4. What plan is the Federal Emergency Management Agency (FEMA) advocating for civil defense of the nation?

5. Who are the "survivalists"? What are their beliefs about the possibilities of an effective civil defense?

Students could also examine the other duties of the Federal Emergency Management Agency. Is managing the disaster of a nuclear war in the same category as the other kinds of disasters and emergencies FEMA manages and plans for? Students might also want to look at the significance of the agency's title. The activities on euphemisms in the "Teaching About Dialogue" section relate directly to this. Finally, find out what percentage of the U.S. population FEMA thinks it can save in the event of a nuclear war with its civil defense plans. How many people does that translate into when you use actual numbers? How does that compare to the number of people who live in your city or town? How many people in the U.S. would die?

d. *The History of Civil Disobedience*

Have students trace the history of civil disobedience and non-violent protest as a means of affecting social and political change in the United States by reading excerpts from various historical, autobiographical, and biographical sources. As students read, discuss the following questions:

1. What form of action did the civil disobedience take? What else could the participants have done (other than an act of civil disobedience)? What else have they already tried?

2. What risks did the participants take?

3. What were the personal consequences for the participants?

4. What reasons did the participants give for choosing civil disobedience as the course of action taken? What do you think of their reasons?

5. What were the arguments against this course of action?

6. How effective was the act of civil disobedience? What was accomplished by it?

7. Is breaking the law ever justified? If you think it is, then when? (Refer to the "Using Printed Materials" section, and the article entitled "Vermont Soldier Turns to Peace."

Below are some examples of acts of civil disobedience taken in the United States. Locate yourself, or ask your students to find, accounts of the actions from several different sources.

1. The Boston Tea Party.

2. Henry David Thoreau's refusal to pay taxes in protest of slavery, 1849.

3. Susan B. Anthony's illegal vote and subsequent trial in Rochester, NY, 1872.

4. The Suffragists' use of pickets at the White House, and their arrests and jail sentences as a result, 1918.

5. The sit-down strikes in the automobile factories of Detroit, 1930's.

6. The sit-ins at lunch counters in the South by Black students and other civil rights activists in the 1960's. (Coming of Age in Mississippi by Anne Moody is a good autobiographical account of this.)

7. Rosa Parks and the Montgomery, Alabama bus boycott.

8. Martin Luther King's activities in the 1960's civil rights movement.

9. The draft resisters of the Viet Nam War era, and the current draft resisters.

10. Sit-ins at the UN in support of disarmament, June 14, 1982.

e. The Peace Movement

Have students read the accompanying article entitled "Support Grows For U.S. School of Peace." Study the first proposal for a U.S. Department of Peace made in 1793 by Benjamin Banneker and Benjamin Rush. What were the arguments for it? Against it? Read the editorial in the New York Times (August 9, 1982) that refers to the proposed Peace Academy. What point of view does the editorial take? Do you agree or disagree? Why?

What do you think about the idea of establishing either a Peace Academy or a U.S. Department of Peace? Which do you think would be more effective? What should be taught in a school of peace? Why? Who should go to the school? What should the duties of a U.S. Department of Peace be?

Research the activities of the peace movement in the United States in the early 1900's. Who was Dorothy Day? Who were some of the other key figures? What were the goals of the peace workers? How did they try to reach their goals? Were they successful? Read about the peace movement in the 1960's from several different types of sources. What were the similarities and differences between this movement and its predecessors?

Boston Globe August 4, 1982

Support grows for US school for peace

By Robert Levey
Globe Staff

The idea surfaced for the first time in 1793, when Benjamin Banneker, a black philosopher, and Benjamin Rush, a signer of the Declaration of Independence, proposed a US Department of Peace. It got nowhere.

On 139 more occasions since 1940, proposals for either a Department of Peace or a US Academy for Peace have been introduced in Congress. None ever even reached the hearing stage.

But this summer another proposal for a US Academy for Peace is inching its way through Congress over the objections of the Reagan Administration and the diplomatic establishment.

There are 54 senators and 130 member of the House of Representatives cosponsoring bills that would create and provide funds for the academy. And more than 30,000 citizens have contributed to the National Peace Academy Campaign, the lobbying effort that has kept the proposal alive.

For the last six years, proponents have been raising money and welding congressional support for a government-funded school in the Washington area that would train diplomatic and military personnel and other professionals in techniques for conflict-resolution and peacemaking.

The State Department and the heads of several foreign service graduate programs, including Dean Theodore Eliot at the Fletcher School of Law and Diplomacy at Tufts University, dismiss the idea as a wasteful and unnecessary duplication of their efforts.

The current legislation in the House (H.R. 5088) and Senate (S. 1889) was filed after a favorable report on the academy proposal last fall by a presidential commission that was appointed in 1979. The Senate bill has already received committee approval and could be brought to a vote by the end of this month. The House bill awaits a committee vote and, according to a congressional source, the House will probably wait to see how the Senate deals with the bill before taking further action.

In testimony at a House hearing July 20, the commission vice chairman, James H. Laue, a University of Missouri-St. Louis sociologist, urged lawmakers to keep in mind the commission's conclusion that "peace is neither utopian nor a sign of weakness or cowardice . . . Peace requires knowledge, judgment, and skill no less complex than what is required for war."

Laue cited the recent British-Argentine conflict for control of the Falkland Islands as a vivid example of the need for a peace academy and the specially trained negotiators it would produce. The United States failed in its attempt to help the combatant countries avoid violent conflict, Laue said, because it neglected to employ a number of new techniques that "conflict analysts" have developed in recent years.

A big mistake was the United States' "basic role conflict between our expressed role as 'mediator' and our actual underlying alignment as an advocate for one of the parties – Great Britain," Laue said.

Rep. Dan Glickman (D-Kan.), a strong supporter, said the academy's three-fold mandate would be to conduct research in peacemaking, to train individuals from government, private enterprise and voluntary associations in peacemaking skills and to serve as an information clearinghouse in the field.

The proposal embraces some of the broad concepts that have been refined in the work of Roger Fisher, a Harvard Law School professor and an expert on the new negotiating techniques. He told the House committee that "work at the Harvard Negotiation Project over the last few years has convinced us that there are some basic, common-sense concepts relevant to dealing with international conflict that are too often ignored, that can be learned and that can make a big difference."

These conflict-resolution techniques have begun to be used successfully in resolving hostage-takings and calming prison riots, he said. Though "lawyers have spent a thousand years working on the litigation process," he said, "comparatively little work has been done on improving the negotiation process."

Fisher said there is an urgent need to start assembling all known materials on "the state of art" in the field of conflict resolution both for immediate use by negotiators and in preparation for the research and teaching functions of the proposed peace academy.

The Administration's opposition is blunt. David Stockman director of the Office of Management and Budget, has said that "a new government entity in this area is unnecessary." And President Ronald Reagan has told Sen. Spark Matsunaga (D-Hawaii), who headed the commission that proposed the peace academy, that he cannot justify spending $66 million for the academy when work is already being done in the same areas by private universities and foundations.

Supporters point out that the start-up cost of $66 million to build and operate the academy for its first four years is one-fifth the cost of a B1 bomber. Beyond that, Milton C. Mapes Jr., executive director of the National Peace Academy Campaign, stresses that "the first major effect of the Peace Academy would be its symbolism in establishing US leadership in the field of creative peacemaking."

In arguing their case, advocates of the proposal like to quote General of the Army Omar Bradley, who said that "we have grasped the mystery of the atom and rejected the Sermon on the Mount. Ours is a world of nuclear giants and ethical infants. We know more about war than we do about peace. We know more of killing than we do of living."

Supporters believe that graduates of a future US Academy for Peace, a fourth of whom would come from other countries, would make the world a safer place by helping nations find better and surer ways to wage peace rather than war.

-191-

6. Topics for Further Research

1. Additional student research projects could be done on individuals who have taken a difficult or unpopular stand. These could relate to a number of subject area classes -- math, science, social studies, literature, art, etc.

2. Students could research the lives of some of the people who worked on the early development of the atomic bomb: Albert Einstein, J. Robert Oppenheimer, Edward Teller, Enrico Fermi, Leo Szilard, other members of the Manhattan Project, etc. (the August 16, 1982 edition of the Boston Globe contains an article on this topic about George Weil, assistant to J. Robert Oppenheimer, entitled "A Scientist Who Couldn't Love the Bomb.") Students could then answer the questions:

   --How did this person become involved in the development of the atomic bomb?

   --Why did this person become involved?

   --What effects on the world and its people did the person think this new development would have?

   --What reservations did this person express about the work being done on the development of a nuclear weapons technology?

   --Did the person speak out publicly about the use of this new technology? Gather at least three quotes by the person relating to this.

3. Students could research the number and types of nuclear weapons treaties the United States and the Soviet Union have signed with each other in the past thirty years. What purpose did each treaty serve? Was it to limit testing, limit weapons, reduce the risk of war, or prevent the spread of weapons? Which treaties did Presidents Eisenhower, Kennedy, Johnson, Nixon, Ford, Carter, and Reagan negotiate and sign? (Possible sources: World Military and Social Expenditures by R. Sivard, available from ESR, and The Threat of Nuclear War: A Briefing Manual by the Union of Concerned Scientists.)

CONCLUSION

More and more people are educating themselves about the arms race. We are hoping that this educational process will lead to more active citizens creating a safe future. In participating in this Day of Dialogue, you and your students play an important part in this process. In order to educate others, please share your experiences with us so that all of us can feel a part of something larger than our classrooms and schools. Educators for Social Responsibility welcomes your comments.

PART THREE

RESOURCES

I. SELECTED ANNOTATED BIBLIOGRAPHY

1. Books for Children

Grades K-3

Baker, Betty. The Pig War, Harper & Row, 1969. An I CAN READ history book about the rivalry between two groups, each of whom thinks an island belongs to them

Coerr, Eleanor. Sadako and the Thousand Paper Cranes. Dell Yearling Book, 1977. $1.25. A fictionalized account based on a true story about an 11 year old Japanese girl who, in 1954, is found to have leukemia resulting from radiation exposure nine years ago.

Emberly, Barbara. Drummer Hoff, N.J.: Prentice-Hall, Inc., 1967. A simple attractive verse with colorful pictures about the building of a cannon.

Leaf, Monro. The Story of Ferdinand. Illustrated by Robert Lawson. Viking Press, 1938. 70 p. Classic story of the bull who didn't want to fight.

Lobel, Anita. Potatoes, Potatoes. USA: Bowmar/Noble Publishers, Inc., 1967. A story about a mother's attempt to shield her two sons from war, their eventual involvement in it, and the final resolving of the war.

Ringi, Kjell. The Stranger. N.Y.: Random House, Inc., 1968. A fable that tells the story of people who in fear bring out their cannon against a giant-stranger but when they finally get to know him he is invited to stay in their country.

Udry, Janice May. Let's Be Enemies. Illustrated by Maurice Sendak. Scholastic Books (originally Harper & Row hadrback), 22 p. $.75. About two little boys. The theme: power struggle. A delightful, humorous treatment depicting real child problems which reflect similar adult ones.

Zarambouka, Sofia. Irene. Tee Loftin Publishers, Washington, D.C. Available from Educators for Social Responsibility, 639 Massachusetts Avenue, Cambridge MA 02139. A beaufutifully illustrated fable about peace including a play for young children to perform with sketches for simple scenery and costumes, tunes, and lyrics.

Zolotow, Charlotte. The Hating Book. N.Y.: Harper & Row, Publishers, Inc., 1969. The childhood problem of hating one's friend and being devastated by this feeling is presented in this book.

Zolotow, Charlotte. The Quarreling Book. N.Y.: Harper & Row, Publishers, Inc., 1963. A story about people taking out frustrations on each other by picking on the next smaller person.

Grades 4-6

Hiroshima A-Bombed Teachers Association. Let's Cry for Peace. 64 p. $.50. (booklet) Available from: Peace Resource Center, Box 1183, Wilmington College, Wilmington OH 45177. Personal stories of two children, including a brief history of peace movement and very beautiful, moving poems and songs appealing for peace.

Steele, William O. The war party. Illustrated by Lorinda Bryan Cauley. Harcourt Brace Jovanovich, 1978. A Let Me Read book. 63 p. $4.95. A young Native American looks forward to his first battle, but when he actually participates in an attack on a neighboring village, he is horrified by the brutality that surrounds him.

A peaceable kingdom: the Shaker abecedarius. Illustrated by Alice and Martin Provensen. Viking, 1978. 41 p. $8.95. An alphabet verse with clear, quietly detailed illustrations supplemented on nearly every page by minute inscriptions representing Shaker thought.

Sendak, Maurice. Where The Wild Things Are. USA: Harper & Row, Publishers, Inc., 1963. The story of a misbehaved boy who is sent to bed, where he imagines a place inhabited by bizarre, scary creatures.

Zim, Jacob. My Shalom, My Peace. Edited by Jacob Zim. N.Y.: McGraw-Hill - Sabra Books, 1975. A moving collection of paintings and poems on the theme of peace, by Arab and Jewish children.

Silverstein, Shel. Where The Sidewalk Ends. N.Y.: Harper & Row, Publishers, Inc., 1974. A book filled with delightful poems and drawings for children.

Junior High School

Davies, Andrew. Conrad's War. Crown, 1980. 120 p. $7.95. A bizarre story of a young boy's fantasies about war, killing, and guns.

Degens, T. The Game on Thatcher Island. Viking, 1977. 148 p. $7.95. Harry is flattered when a group of older boys invite him to participate in their game of war on Thatcher Island, but his elation disappears when the game takes a terrifying turn.

Degens, T. Transport 7-41-R. Viking, 1974. 171 p. $7.95. (paper, Dell, $1.50.) On one level this story is one of sheer adventure; on another it is a powerful statement on the devastation war and misguided patriotism can impose on the human spirit.

Levoy, Myron. Alan and Naomi. Harper & Row, 1977. 192 p. $7.95. A powerful portrait of Naomi, who has been traumatized by having witnessed Nazi brutality to her father in France during the war.

Meyer, Edith Patterson. In search of peace: winners of the Nobel Peace Prize, 1901-1975. Illustrated by Billie Jean Osborne, Abingdon, 1978. 208 p. $7.95. Information is presented about the Nobel Peace Prize and its recipients with an emphasis on efforts by individuals and organizations to keep humanity cooperating and

at peace.

Nagasaki Prefecture Hibakusha Teacher's Association, In the Sky Over Nagasaki: An A-Bomb Reader for Children. 105 p. $3.50 (booklet). Available from: Peace Resource Center, Box 1183, Wilmington College, Wilmington OH 45177. Effects of the August 9, 1945 bombing of Nagasaki. Written from the point of view of a big camphor tree which survived the bombing. Use with teacher or parental guide.

Nagai, Takashi, ed. Living Beneath the Atomic Cloud: Testimony of the Children of Nagasaki. Tokyo San-Yu-Sha. 65 p. $3.25 (booklet). Available from: Peace Resource Center, Box 1183, Wilmington College, Wilmington OH 45177. Vivid and moving descriptions by children who were from 5 to 12 years old at the time of the bombing.

Orgel, Doris. The Devil in Vienna. This is a story of individual acts of bravery and love in a world characterized by mass indifference and betrayal.

Osada, Arata. Children of the A-Bomb: The Testament of the Boys and Girls of Hiroshima. New York: G.P. Putnam and Sons, 1959. Oral histories by Japanese who were junior high school students when the bomb was dropped on Hiroshima.

Sampson, Fay. The Watch on Patterick Fell. Greenwillow Books, N.Y., 1978. 153 p. $7.95. Set in England some years in the future, the story postulates a situation where wide-spread protests force the shut-down of nuclear power plants and waste disposal facilities.

Sone, Monica Itoi. Nisei daughter. Seattle: University of Washington Press, 1979. 238 p. (no price available). A unique and moving personal account of a Japanese-American family's relocation during World War II.

Uchida, Yoskiko. Journey Home. Atheneum, 1978. 131 p. $7.95. A Japanese-American girl and her family attempt to reconstruct their lives after their release from an American concentration camp in an atmosphere of strong anti-Japanese feeling which fosters fear, distrust, and violence. The sequel to "Journey to Topaz".

_____, Journey to Topaz; a story of Japanese-American evacuation. Scribner, 1971. 149 p. $7.95. After Pearl Harbor is attacked, a Japanese-American girl and her family are forced to go to an "aliens" camp where they experience suffering and humiliation. A story of dignity and courage.

2. Informational Materials on Nuclear Issues for Adults/Teachers/ High School Students

American Psychiatric Association. Psychosocial Aspects of Nuclear Developments, 1700 18th Street N.W., Washington DC 20009. Addresses psychosocial aspects of the arms race, US-USSR relations, terrorism, the accident at Three Mile Island for children, adolescents, and adults. Includes a review of the relevant literature.

Armaments or Disarmament? The Crucial Choice. SIPRI 1978, 32 p. Stockholm International Peace Research Institute (pamphlet). A clear, brief but informative overview of world investments in advanced weapons of mass destruction, of the social, economic, and future prospects for arms control.

Beeferman, ed. Cambridge and Nuclear Weapons. Cambridge MA: City of Cambridge, 1981. 19 p. (pamphlet) Outlines the devastation which would result from a nuclear attack and suggests that prevention is the only valid form of defense.

Boston Study Group. The Price of Defense. New York: Times Books, 1979. Order from The Nation, 72 Fifth Ave., New York City 10011. $4.95. This book describes our weapons systems and offers an alternative plan for reducing our military equipment without sacrificing adequate defense.

Caldicott, Helen. Nuclear Madness -- What You Can Do. Autumn Press, 1978. 120 p. $3.95. A simple and powerful introduction to the topic by a passionate opponent of nuclear power and weapons.

Dougal, Lucy. War and Peace in Literature. World Without War Publications. 67 E. Madison, Suite 1417, Chicago IL 60603 (312) 236-7459. $5.00 plus .75 postage. An annotated listing of 354 literary works from the western tradition that hold a mirror up to war.

Educators for Social Responsibility. Primer on the Arms Race. 639 Massachusetts Avenue, Cambridge MA 02139. A collection of articles giving background information on the arms race including a section on Starting a local chapter of Educators for Social Responsibility.

The Effects of Nuclear War -- Summary. Congress of the U.S./Office of Technology Assessment. Washington DC 20510, 1980. 27 p. (pamphlet) Government assessment of the short and long term effects of nuclear war, social and economic as well as physical.

Fact Sheets. Available from UN Centre for Disarmament, New York NY 10017.

Fact Sheet No. 15. South Africa's Plan and Capability in the Nuclear Field. A 5-page summary. UN, 1980. Describes United Nations concern about South Africa's policy of apartheid and its nuclear activities.

Fact Sheet No. 17. Disarmament. Summary of Comprehensive Study on Nuclear Weapons. UN, 1978. 9 p. Excellent brief outline of development of nuclear weapons, their effects, theory of deterrence, and need for disarmament.

Fact Sheet No. 18. Disarmament Week. UN, 1981. 10 p. Good little booklet on ways to use Disarmament Week (Oct. 24) to promote peace.

Fact Sheet No. 16. Disarmamen[illegible] UN, 1980. 10 p. One of series about the role of the UN in promoting disarmament.

Final Document: Special Session of the General Assembly on Disarmament. UN Department of Public Information, New York NY 10017, 1978. 27 p. (pamphlet) Free. Comprehensive outline of need for and steps towards achieving disarmament.

Fisher, Roger, and Ury, William, Getting to Yes, Houghton-Mifflin, N.Y., 1981. An excellent book on the art of negotiating.

Ground Zero Campaign. Nuclear War: What's In It For You?, Pocket Books, 1982. 272 p. $2.95. An educational resource for those interested in developing an informed perspective on the threat of nuclear war. Includes basic factual information and a representation of both sides of policy questions with analysis and interpretation.

Hersey, John. Hiroshima. Bantam Books, 1946. $2.25. A classic journalistic account on the dropping of the A-bomb on Hiroshima and the events which followed.

Hidankyo, Nihon, Ed. Hibakusha, The Confederation of A- and H-Bomb Sufferers Organization, S-31-7 Shinbashi Minatoku, Tokyo, Japan 105. Describes the efforts of the Japanese and the Hibakusha (survivors) to recover from the effects of the bombings and work for peace.

Ibuse, Masuji. Black Rain. trans. from Japanese by John Bester. Kodansha International Ltd., 1969. $4.95. This novel, first published in 1969, is about a family who lived through Hiroshima in 1945.

Lens, Sidney. The Day Before Doomsday. Boston: Beacon Press, 1977. 274 p. $5.00. A history of US nuclear arms from Hiroshima to the administration of Gerald Ford.

Makers of the Nuclear Holocaust, A Guide to the Nuclear Weapons Complex and Citizen Action. Nuclear Weapons Facilities Project, Box 271, Nyack NY 10960, 1981. 24 p. (pamphlet) An informed account of the production and development of nuclear weapons.

Mattes, Kitty Campbell. In Your Hands, A Citizen's Guide to the Arms Race. Parents for Peace, 140 West State St., Ithaca NY. 48 p. (pamphlet) A short paperback giving the history of the nuclear arms race since 1945.

New Boston Review, December 1981. (newspaper) A good collection of newspaper articles on various aspects of the nuclear issue.

Nuclear Weapon-Free Zones. United Nations, NY, 1977. 27 p. (pamphlet) Free. Lists treaties banning nuclear weapons.

Osada, Dr. Arata, Ed., Children of the A-bomb: The Testament of the Boys and Girls of Hiroshima, G.P. Putnam and Sons, N.Y., 1959. Oral histories by Japanese Junior High and High School students who were young children when the bomb was dropped on Hiroshima.

Physicians for Social Responsibility. Civil Defense in the 80's: Key Aspects of the Debate on Civil Defense, 639 Massachusetts Avenue, Cambridge MA 02139. 1982. A collection of articles presenting an overview of the current debate on civil defense.

Sharp, Dr. Gene. Making the Abolition of War a Realistic Goal. Institute for World Order, N.Y. 1980. paper, 14 p. (pamphlet) This tightly reasoned essay offers valuable descriptions on the nature of war.

Sivard, Ruth Leger. World Military and Social Expenditures 1981. Order from: World Priorities, Inc., Box 1003, Leesburg VA 22075. 44 p. $4.00/copy; $2.50 for 25 copies or more. A world-wide statistical picture of military and social expenditures.

Thompson, E.P. and Dan Smith. Protest and Survive. Monthly Review Press, NY, 1981. 216 p. $4.95. A broad spectrum of opinion and information on the dangers inherent in US military and foreign policy and the nuclear confrontation between Washington and Moscow that threatens all of us.

Unforgettable Fire. Pantheon Books, 1977. $7.95. Drawings and paintings by survivors of the A-bomb in Hiroshima, collected thirty years after the event.

Union of Concerned Scientists. The Threat of Nuclear War: Briefing Manual. 1384 Massachusetts Avenue, Cambridge MA 02138. Presents articles and exerpts providing background data on nuclear war, weapons, policy, and strategy particularly for planning educational activities.

3. Books on the Pedagogy and Psychology of Teaching About War and Peace

Abrams, Schmidt, Hoskins, Klein. Handling Conflict and Aggressive Behavior in the Classroom. Portland ME: J. Weston Walch, 1977. 31 p. Suggestions for dealing with conflict and aggression and teacher assessment.

Escalona, Sibylle. Children and the Threat of Nuclear War. Child Study Association of America, 1962. This pamphlet updated and republished as an article in Education for Peace; Focus on Mankind, ASCD 1973. Discusses, from a developmental point of view, children's anxieties about the world situation and offers suggestions about how parents and teachers can help children deal with their anxieties.

Haavelsrud, Magnus, ed. Education for Peace: reflection and action. IPS Science and Technology Press, England, 1976, hard cover, 407 p. Adult level. A volume of essays arising from the first World Conference of the World Council for Curriculum and Instruction.

Stanford, Barbara, ed. Peacemaking. Bantam Books, 1976, paper, 500 p. high school to adult level. Subtitled "a guide to conflict resolution for individuals, groups, and nations."

Henderson, George, ed. Education for Peace, Focus on Mankind. Association for Supervision and Curriculum Development, Washington DC, 1973. 235 p. hardback. Adult level. A book of statistics and literature which informs and prods educators toward becoming more effective teachers of peace.

4. Curricular Materials

Abrams, Grace and Fran Schmidt. Learning Peace. Philadelphia: Jane Addams Peace Association, 1972. 50 p. Age range: 7-12 grade. Useful bibliography: books, films. List of peace organizations. Activities and assignment ideas on global conflict resolution, distribution of world resources and population, nationalism, world problems, and international organizations. Watch for use of man and he as universal.

Abrams, Grace and Fran Schmidt. Peace is in our hands. Philadelphia. Jane Addams Peace Association, 1974. 92 p. Age range: elementary. Useful bibliography: books, films, records. Ideas, lessons, bibliographies for the following topics: diversity and commonalit , conflict-solving, ecology and interdependence.

Aquino-Mackles, Alexis, David C. King and Margaret S. Branson. Myself and Others. Global Perspectives in Education, 218 E. 18th St., New York NY 10003, 1979. Age range: Elementary. Curricular ideas, activities and suggestions for teachers, change, communications, conflict and interdependence.

Bressler, Marion A. and Leo A. Bressler. Peace or War. Englewood Cliffs, N.J.: Prentiss-Hall, 1977. American Problems Series, ed. J.R. Fraenkel. paperback, 120 p. Level: High School/college. Chapters on the nature of war, causes, effects, alternatives and selections from writings about war.

Carpenter, Susan. A Repertoire of Peacemaking Skills. Peace Education Network of the Consortium on Peace Research, Education and Development and the Institute for World Order, 1977. Global peacemaking issues -- quality of life; research; assumptions; organizations that exist; sample cases (actual) -- and skills -- communication; analysis; activism (what to do).

Comstock, Margaret. Building Blocks for Peace. Philadelphia: Jane Addams Peace Association, 1973, 18 p. Age range: Kindergarten. Useful bibliography: book and film list. This book focuses on the importance of friends and sharing and an appreciation of a variety of cultures through books, films, activities.

Educating for Peace and Justice: A Manual for Teachers in 4 volumes:

I.	National Dimensions	9.00	
II.	Global Dimensions	9.00	
III.	Religious Dimensions	9.00	(prices include postage)
IV.	Teacher Background Readings	5.00	

Available from The Institute for Peace and Justice, 2747 Rutger, St. Louis MO 63104. Units contain teaching strategies for elementary, secondary and college levels, action possibilities, student readings, case studies, bibliographies.

Orlick, Terry. The Cooperative Sports and Games Book and The Second Cooperative Sports and Games Book, Pantheon Books. Two excellent collections of cooperative games, including many from other cultures.

Peace and World Order Studies: A Curriculum Guide. Transnational Academic Program, Institute for World Order, NY, 1981. 386 p. 3rd edition, paper, $8.00. Level: College/adults. 80 pages of essays on world order education by Roy Preiswerk, Richard Falk and Burns H. Weston; followed by 280 pages of course syllibi plus 30 pages of resource materials and organizations.

Prutzman, Burger, Bodenhamer, Stern. The Friendly Classroom for a Small Planet. N.J.: Avery Publishing Group, 1978. 109 p. Age range: Elementary. Very good bibliography. Methods of conflict resolution and building a positive classroom atmosphere as a precursor to creative problem solving.

Reardon, Colby. War Criminals, War Victims. Institute for World Order, Inc./Random House, 1974. Crises in World Order Series, ed. Metcalf. paper, 55 p. Level: high school/college. Cases: Andersonville, Nuremburg, Hiroshima, MyLai. Considerations of war and the individual through these four histories.

Try This: Family Adventures toward Shalom. Nashville TN: Discipleship Resources, 1979. 69 p. Age range: child to adult. Useful annotated bibliography. It's geared toward a family or church setting but many activities could be used in a classroom; each activity has a reference to the Bible.

Switzer, Kenneth A. and Paul T. Mulloy. Global Issues: Activities and Resources for the High School Teacher. Social Science Education Consortium, Inc., Broadway, Boulder CO 80302, 1979. 91 p. $7.95. Lesson plans and handouts on: Introducing the concept of global awareness, world trade and economic interdependence, global conflict and the arms race, economic development and foreign aid, environment and technology, energy, and natural resources, and human rights.

"Teaching Global Issues Through Simulation: It Can Be Easy," Intercom, Issue #75, Center for War/Peace Studies, 1974, paper, 32 p. Level: adult. Entire issue devoted to simulation games which help teach global issues.

UNICEF jigsaw puzzles: K-3, 3-6, 7-adult. United Nations, UN Plaza, New York. These jigsaw puzzles have themes of peace and friendship and make a good cooperative activity.

Flugelman, Andrew. More New Games! and Playful Ideas from the New Games Foundation. Tiburon, CA: The Headlands Press, Inc., 1981. A resource book about a creative new approach to cooperative play and recreation.

Facing History and Ourselves. Decision Making In a Nuclear Age, 25 Kennard Rd., Brookline MA 02146. A curriculum for Junior High and High School students which gives them a chance to make judgements about today and their future by learning some of the many perspectives related to international affairs and the nuclear weapons technology.

Fraenkel, Carter, Reardon. Peacekeeping. Institute for World Order, Inc./Random House. Perspectives in World Order Series, ed. Fraenkel. 1973, paper, 71 p. Level: high school/college. Various peace-keeping models described in sections each containing description of case. Includes illustrations, map and diagrams.

Jobs with Peace. Crossroads. 77 Summer Street, Boston MA 02110. A one-week action curriculum on the impact of military spending. A one-week action curriculum for High School English, Science, and Social Studies teachers on the impact of military spending.

Kreidler, William J. Creative Conflict Resolution: A Guide to the Peaceable Classroom. Glenview III: Scott Foresman and Co. Due Out in early 1983. Age range: elementary. Contains a complete discussion on how conflict develops in classrooms and how teachers can respond to it.

Metcalf, Reardon, Colby. The Cold War and Beyond From Deterrence to Detente -- To What? Institute for World Order, Inc./Random House. Crises in World Order Series, ed. Metcalf, 1975, paper, 71 p. level: high school/college. Case studies: Hungarian Rebellion, Cuban Missile Crisis, Arab-Israeli 1973 War. Chronology and Photographs.

Nesbitt, William A., ed. Human Nature and War. Center for International Programs and Comparative Studies, University of State of New York Press, Albany NY 12210. 1973, 65 p. Level: high school. This is an introduction to the philosophy of whether human nature is or is not innately warlke.

Nesbitt, Abramowitz, Bloomstein. Teaching Youth About Conflict and War. National Council for the Social Studies, Washington DC, 1973. 101 p. Age range: Junior high school, high school. Useful annotated bibliography. A theoretical discussion of conflict, an actual experiment, "Robbers Cave Experiment", some historic curriculum material on conflict and wars, and a game of conflict and cooperation, "Oil Islands Dispute". A lot of valuable material and ideas.

II. NATIONAL RESOURCES AND ORGANIZATIONS

American Civil Defense Association, Journal of Civil Defense, P.O. Box 910, Starke FL 32091. Publishes the "Journal of Civil Defense" which presents information relating to civil defense, the survival of free government, the United States, and peace in the nuclear age. It is slanted to the non-technical reader. They also publish "The American Civil Defense Association Alert", a bi-monthly newsletter.

The American Friends Service Committee, 1501 Cherry St., Philadelphia PA 19102. (215) 241-7177. A Quaker organization which supports disarmament/peace efforts through their regional offices. AFSC carries on a variety of educational, humanitarian and social change programs. It was one of the founders of the nuclear weapons freeze campaign. A variety of peace education resources including fact sheets, booklets, slide shows and film strips are available through regional AFSC offices and NARMIC --National Action Research on the Military Industrial Complex, a project of AFSC.

Arms Control Association, 11 Dupont Circle, N.W., Washington D.C. 20036. (202) 797-6450. A nonpartisan national membership organization dedicated to promoting public understanding of effective policies and programs in arms control and disarmament. They participate in joint ventures with the Carnegie Endowment for International Peace and publish a monthly newsletter "Arms Control Today".

Center for Defense Information, 303 Capitol Gallery W., 600 Maryland Avenue S.W., Washington DC 20024. (202) 484-9490. A project of The Fund for Peace, the Center for Defense Information is a non-partisan research organization that provides objective analyses of U.S. military programs for members of Congress and other top decision makers, the news media, key opinion leaders, and private individuals throughout the U.S. The Center supports a strong defense, but opposes excesses and waste in military spending and programs that increase the danger of nuclear war. Publications are available upon request.

Coalition for a New Foreign and Military Policy, 120 Maryland Avenue N.E., Washington D.C. 20002. (202) 546-8400. The Coalition unites 47 national religious, labor, peace, research and social action organizations working for a peaceful non-interventionist and demilitarized U.S. foreign policy. They offer a variety of publications and a newsletter.

Council for a Liveable World. National Office: 11 Beacon Street, Boston MA 02108. (617) 742-9395. Legislative Office: 100 Maryland Avenue N.E., Washington D.C. 20002. (202) 543-4100. A national group with its legislative office in Washington, D.C. which is dedicated to the prevention of nuclear war through political activity and public education. In addition to publishing books and pamphlets, the Council has formed a Speakers Bureau of physicists, chemists, physicians, arms control specialists, and political scientists. If you are interested in speakers contact their Boston office. They also have a Nuclear Arms Control Hotline (call 24 hours a day 202-543-0006) to provide people with the latest information on arms control, military budget legislation, Executive Branch policy developments, and highlights of key upcoming votes in Congress.

Council on Economic Priorities, 84 Fifth Avenue, New York NY 10011. (212) 691-8550. An organization established to disseminate unbiased and detailed information on the practices of U.S. corporations. These practices have a profound impact on the quality of American life. CEP was established so that the American public could become aware of this impact and work to ensure corporate social responsibility. CEP publishes reports, newsletters, and a variety of publications which deal with government relations/political influence; military spending; energy; environment/OSHA; consumer; other issues; and ethical investment.

Facing History and Ourselves, 25 Kennard Road, Brookline MA 02146. (617) 734-1111, Ext. 335/355. A nationally recognized curriculum development teacher training project which has developed a curriculum entitled "Decision Making In A Nuclear Age" for junior and senior high school students.

Federation of American Scientists, 307 Massachusetts Avenue N.E., Washington D.C. 20002. (202) 546-3300. An organization licensed to lobby in the public interest and composed of 5000 natural and social scientists and engineers who are concerned with problems of science and society. FAS was first organized in 1945 as the Federation of Atomic Scientists and has functioned as a conscience of the scientific community for more than a quarter century. FAS publishes a monthly Public Interest Report. The Federation operates the Nuclear War Education Project, which publishes a newsletter (Countdown) ten times per year. The purpose of the Project is to (1) promote the development of study groups, course modules and entire courses on nuclear war; (2) train scientists and others to give presentations on nuclear war issues at schools, churches, and before citizen groups; (3) promote the development and distribution of teaching materials on nuclear war; and (4) facilitate cooperation among individuals and organizations concerned with nuclear war education.

The Fellowship of Reconciliation, Box 271, Nyack NY 10960. (914) 358-4601. F.O.R. joins many peace and justice groups, prominent scientists, and religious leaders in calling for a nuclear moratorium. They have local and regional disarmament programs throughout the country. F.O.R. publishes a magazine called Fellowship. They also have resources which include books, pamphlets, films, slide shows, information packets, and a list of speakers.

Friends of the Earth, 530 7th Street S.E., Washington D.C. 20003. (202) 543-4312. Through its nine regional offices, Friends of the Earth lobbies for a bilateral freeze and a phase-out of nuclear power plants.

Ground Zero, 806 15th Street N.W., Suite 421, Washington D.C. 20005. (202) 638-7402. Executive Director -- Roger Molander. Provides educational programs on the problem of preventing nuclear war. Ground Zero is establishing Community Education Groups which will provide basic nuclear war education for group members and facilitate a broader educational outreach into the community. They have published Nuclear War: What's In It for You?

Jobs With Peace, 77 Summer Street, Boston MA 02110. (617) 451-3389. Frank Clemente, Director. A nationwide effort to redirect federal priorities away from war and unnecessary military spending in order to meet human needs. Various materials are available including booklets -- "Towards a Boston Peace Budget"; "The Effects of Military Spending on Education and the Economy in Massachusetts"; a Jobs with Peace Organizer's Manual which explains the economic and military issues of Jobs with Peace and includes sections on running a Jobs with Peace Referendum; planning a Jobs with Peace Week; and organizing with labor unions and local governments; and an Education Organizing Packet which describes how to work with school committees and teachers unions. It includes the booklet about the impact of military spending on Massachusetts teachers, along with the one-week action curriculum "Crossroads" for high school English, Science, and Social Studies teachers.

Institute for Defense and Disarmament Studies, 251 Harvard Street, Brookline MA 02146. Contact person: Liz Bernstein. (617) 734-4216. A research center which seeks to educate the public about military forces and disarmament by answering requests for information, publishing research, and making its library available to interested persons.

International Physicians For The Prevention of Nuclear War, 635 Huntington Avenue, 2nd floor, Boston MA 02115. (617) 738-9404. Seeks to alert all physicians to the threat posed by nuclear weapons. Provides information to the public which shows that physicians would be unable to provide adequate health care in the case of a nuclear war.

Mobilization for Survival, 727 Massachusetts Avenue, Cambridge MA 02139. (617) 354-0008. A national coalition of organizations and individuals committed to the elimination of nuclear weapons, banning of nuclear power, stopping the arms race, and working for human needs.

Nuclear Information Resource Service, 1536 16th Street N.W., Washington D.C. 20036. (202) 483-0045. A national clearinghouse and networking center for people concerned about nuclear issues. They publish a bi-monthly newsletter "Groundswell", provide services for networking, fact sheet distribution, Legislative Alerts, and a toll-free Information Line.

Nuclear Weapons Freeze Campaign -- National Clearinghouse, 4144 Lindell Blvd. Suite 404, St. Louis MO 63108. (314) 533-1169. The clearinghouse monitors freeze activity nationwide and maintains a comprehensive list of local freeze organizers. Write to them for their local contacts list to directly contact Freeze workers in your region. The clearinghouse also publishes updates of the Freeze campaign in their newsletter and provides resources for local Freeze activity.

PEACE LINKS -- Women Against Nuclear War, 600 New Hampshire Ave. N.W., Suite 1000, Washington D.C. 20037. (202) 965-3410. PEACE LINKS was created to foster awareness and increase participation among women and families at the community, state, national and international levels on the issues of nuclear war, the arms race and the alternative proposals for a world at peace. PEACE LINKS is a means of linking women from different community groups with other organizations so that they can learn about the issues and exercise leadership within their own communities.

Physicians For Social Responsibility, 639 Massachusetts Avenue, Cambridge MA 02139. (617) 491-2754. A non-profit organization of doctors committed to professional and public education on the medical dangers of nuclear weapons and nuclear war. As a national resource center, P.S.R. distributes their own books, publications, newsletter, special pamphlets, reprints and selected audio-visual materials. Their publications include materials on the medical hazards of nuclear weaponry, nuclear war, the arms race/disarmament, civil defense, and the psychosocial aspects of living in a nuclear age. The Cambridge office houses a library which includes a thorough newspaper clipping

file. Around the country, P.S.R. chapters serve as information centers for their communities -- training and providing speakers for a wide range of professional, civic, and community groups. In addition, P.S.R. presents a continuing series of symposia on "The Medical Aspects of Nuclear Weapons and Nuclear War" held in cities throughout the country.

Promoting Enduring Peace, P.O. Box 103, Woodmont CT 06460. (203) 878-4769. Howard Frazier, Executive Director. A religious and educational organization. They have a literature list and will send articles free of charge except for postage.

Riverside Church Disarmament Program, 490 Riverside Drive, New York NY 10027. (212) 749-7000. The program disseminates information to religious groups nationwide and organizes in the New York City area in support of a bilateral freeze and disarmament.

SANE, 711 G Street S.E., Washington D.C. 20003. (202) 546-7100. Runs educational campaigns for both nuclear disarmament and the conversion of military-oriented industry to peaceful purposes. They publish newsletters on disarmament and the peace race (SANE World) and on economic conversion (The Conversion Planner).

Science for the People, 897 Main Street, Cambridge MA 02139. (617) 547-0370. A broad based organization working to build a science and technology responsive to people's needs. The organization's activities combine education, direct action and outreach. They lead forums and workshops, provide speakers, organize conferences and demonstrations, and write extensively on such topics as: occupational safety and health; agriculture and food; genetic technology and reproductive rights; nuclear power and weapons; biological explanations of human society; and health care. They publish a bi-monthly magazine Science for the People, in addition to books, pamphlets, slide shows and literature packets.

Student Teacher Organization to Prevent Nuclear War (STOP Nuclear War), Box 232, Northfield MA 01360. (413) 498-5311 ext. 264. The Rev. Jim Antal, Executive Director and Founder. A nationwide organization of high school students and teachers committed to informing their local school communities of the dangers of the nuclear arms race, the imminent threat of nuclear war and the concrete actions young people can take toward organizing to reduce the threat of nuclear war. Their newsletter is filled with activities and ideas for classrooms.

The Union of Concerned Scientists, 1384 Massachusetts Avenue, Cambridge MA 02238. (617) 547-5552. An organization of scientists, engineers, and other professionals concerned about the impact of advanced technology on society. UCS has conducted independent technical studies on a range of questions related to nuclear arms, nuclear power plant safety, radioactive waste disposal options, U.S. energy policy, and liquified natural gas transport and storage hazards. UCS has released a number of studies dealing with nuclear energy and nuclear weapons. They maintain an extremely active public education program including nationwide events, periodic TV and radio appearances, and frequent speaking engagements.

United Campuses to Prevent Nuclear War, 1346 Connecticut Avenue, Washington D.C. 20036. (202) 223-6206. Sandy Gottlieb: Executive Director. A national organization of college faculty and students who are concerned about the threat of nuclear war. A National Convocation is being held on November 11, 1982 on college campuses across the nation. UCAM is co-sponsoring this event with the Union of Concerned Scientists, Physicians for Social Responsibility, and the Lawyers Alliance for Nuclear Arms Control.

United States Government Agencies:

Center for Strategic and International Studies. 1800 K Street N.W., Washington D.C. 20002. (202) 546-3300.

Federal Emergency Management Agency, 500 C Street S.W., Dept. P., Donohoe Bldg., Washington D.C. 20472.

U.S. Arms Control Disarmament Agency, Washington D.C. 20250.

U.S. Department of Defense, Washington D.C. 20301.

U.S. Department of Energy, Office of Consumer Affairs, Room 8G082, Washington D.C. 20585. Publication: The Energy Consumer.

U.S. Department of State, Bureau of Public Affairs, Office of Public Communication, Editorial Division, Washington D.C. 20526.

The U.S. Peace Council, Box 426, Astor Station, Boston MA 02123. (617) 969-5571. A multi-national, multi-racial organization that merges the struggle for peace, detente, and national liberation with the movements of labor and the community for a better life. It is an associate of the World Peace Council.

Women's Action For Nuclear Disarmament, 56 N. Beacon Street, Watertown MA 02172. (617) 923-9542. WAND is a political action committee formed as a single issue organization to end the nuclear arms race.

Women's International League for Peace and Freedom, 1213 Race Street, Philadelphia PA 19107. (215) 563-7110. With 120 branches, W.I.L.P.F. supports a bilateral freeze through its STOP THE ARMS RACE campaign. They have a speakers bureau and a listing of their publications, posters, T-shirts, and films.

BEST COPY AVAILABLE

MEDIA NETWORK
GUIDE TO DISARMAMENT MEDIA

Media Network, 208 W. 13 St., NY, NY 10011; (212) 620-0878 May 1982

USING FILMS FOR DISARMAMENT ORGANIZING AND EDUCATION

Anyone who has ever used a good film, videotape or slideshow can attest to media's ability to actively engage an audience, stimulate thought, educate and inspire. Media can bring together events, ideas and experiences in a dramatic way that often leaves a lasting impression. It can provide a common experience for a diverse group, spark interest in an issue and provide a catalyst for discussion and action.

However, no film can affect change on its own. Films need to be placed in context and audiences need encouragement to take their first impressions further. Planning a discussion after a film showing allows people an immediate opportunity to express and define their reactions and questions and begin to reflect on them in broader terms. Discussions provide people with an opportunity to analyse what they've seen, hear their questions answered and explore possibilities for action.

Here are some tips to help with film screenings and discussions:

TIPS

** Many groups you'll approach are not organized specifically around the issue of arms control. Select your films, videotapes or slideshows and plan discussions by orienting the program toward each group's interests, whether nuclear power, draft resistance, or other issues.

** Any film, videotape or slideshow has its own point of view. Each one deals with some issues but leaves out others, or is geared toward a certain audience that may not be the same as yours. It's useful to preview any film you haven't seen before you order it, just to make sure it's what you want. Unfortunately, distributors are often unwilling to let prospective rentors preview films. If this happens in your case, see if any local schools, churches or libraries in your area have a copy. In the last resort, you can of course rely on reviews from people who have used the film and whose opinions you trust.

** Some films—notably *The War Game* and others that focus graphically on the horrible effects of nuclear war—bring home the seriousness of the arms race but can leave audiences feeling numbed or even hopeless. People's emotional reactions and fears are important to acknowledge.

Programming two films together is one effective way to deal with these problems. You can show a heavy, emotional film with something lighter, a detailed factual presentation with something more impressionistic, or a film that overwhelms the audience with the direness of the situation with a film that shows examples of ways people have been organizing for peace and disarmament. (Sometimes it can be useful to show a film that promotes the arms race along with one promoting disarmament, pointing out factual discrepancies or evidence of political interests to illuminate the ways the other side uses media in its campaigns.)

This directory has been compiled on short notice for use in organizing and education efforts leading up to the United Nations Special Session on Disarmament (June 1982) and the Nuclear Freeze Campaign.

The information we have included on particular titles is based primarily on written materials from distributors. We feel that although these descriptions are accurate they are also limited, since the best recommendations come from activists and educators who have used the films, videotapes and slide shows in their diverse work.

The titles included here—along with dozens of others on related subjects—are included in the files of our Information Center. Those files are constantly updated as the information in them goes out to media users, and as news from media users comes back to us.

We want to make our information as useful as possible. In order to do so, we need to know what has made media work to help inspire people to action and commitment on the issue of disarmament. We encourage you to contact us if you have used media in your work—either the titles included in this guide or others that are not included.

INDEX

Titles 3
Distributors 7
Film Libraries 8
Subject Index 2
Guides & Resources 2

Another possibility is to choose a speaker who can complement the film and provide whatever is missing—whether it's information about what is technically possible in international arms negotiations or a sense of the broad range of work being done for disarmament by groups across the country or around the world.

** You may want to organize a panel discussion or debate in conjunction with the film showing. Some organizations—such as Physicians for Social Responsibility—have Speakers Bureaus. You can also secure speakers from your local community—a doctor who can talk about the effects of radiation, a scientist who understands the mechanics and effects of nuclear explosions, teachers or others who know about some aspect of the arms race or arms control. Speakers can often link a film with related local concerns or tie the film's specifics to the national campaign.

Media Network is a national non-profit organization. It was founded to increase public awareness of how the media defines and influences our lives, and to help people who are working for social change identify and use films, videotapes and slideshows to further their goals. Media Network is largely supported by a membership of individuals and organizations. Please write us for more information on membership and programs.

INDEX

ACTIVISTS/ORGANIZING
- Are You a Conscientious Objector?
- Eight Minutes to Midnight
- Paul Jacobs and the Nuclear Gang
- Women and Power in the Nuclear Age

ARMS RACE (General)
- The Atomic Cafe
- Booom
- Eight Minutes to Midnight
- The Hole
- The Last Epidemic
- The Race Nobody Wins
- Thinking Twice about Nuclear War
- War Without Winners

CHILDREN'S FILMS
- The Big If
- Booom
- The Hole

DRAFT
- Are You a Conscientious Objector?

GOVERNMENT/INDUSTRY PROPAGANDA
- The Atomic Cafe
- The Selling of the Pentagon

GOVERNMENT SUPPRESSION OF INFORMATION
- Clouds of Doubt
- Day After Trinity
- Paul Jacobs and the Nuclear Gang

HIROSHIMA/NAGASAKI
- Acceptable Risk?
- The Atomic Cafe
- The Decision to Drop the Bomb
- Hiroshima-Nagasaki, 1945
- Unforgettable Fire

HISTORY OF THE ARMS RACE
- The Atomic Cafe
- Day After Trinity
- The Decision to Drop the Bomb
- Marshall Islands
- The Race Nobody Wins

LABOR
- In Our Backyards
- Sentenced to Success
- Who's in Charge Here?
- Whose Budget is it Anyway?

MEDICAL CONSEQUENCES
- Clouds of Doubt
- Eight Minutes to Midnight
- Hiroshima-Nagasaki, 1945
- In Our Backyards
- The Last Epidemic
- Marshall Islands

MILITARY INTERVENTION
- See box, page 5

MILITARY SPENDING
- The Big If
- The Race Nobody Wins
- The Selling of the Pentagon
- Who's in Charge Here?
- Whose Budget is it Anyway?

NUCLEAR ENERGY & NUCLEAR ARMS
- Acceptable Risk?
- Eight Minutes to Midnight
- In Our Backyards
- Paul Jacobs and the Nuclear Gang
- Sentenced to Success
- Women and Power in the Nuclear Age

NUCLEAR TESTING
- The Atomic Cafe
- Clouds of Doubt
- Day After Trinity
- Marshall Islands
- Paul Jacobs and the Nuclear Gang

NUCLEAR WAR SCENARIOS
- The Last Epidemic
- The War Game
- Nuclear Nightmares
- Sentenced to Success

URANIUM MINING
- Acceptable Risk?
- Eight Minutes to Midnight
- In Our Backyards

GUIDES AND RESOURCES

NUCLEAR FILM FORUM *David Brown, 1981/82* This excellent series on nuclear power and nuclear weapons, held in San Francisco, resulted in a 28-page model program and a longer guide listing thumbnail descriptions of 80 films. Program and guide available for $4.00 from Nuclear Film Forum, 2114 Golden Gate Ave., San Francisco, CA 94118; (415) 929-0766.

NUCLEAR WAR PREVENTION KIT *Center for Defense Information, 1982* Provides useful information on how to organize and publicize a film screening using *War Without Winners* as a model, as well as how to secure speakers and lists of print and other resources. Available for $2.00 from the Center for Defense Information, 303 Capitol Gallery West, 600 Maryland Ave. SW, Washington DC 20024; (202) 484-9490.

NUCLEAR WAR FILMS *Jack Shaheen, 1978* Essays analyzing two dozen films of the genre. Available for $4.95 from Southern Illinois University Press, P.O. Box 3697, Carbondale, IL 62901.

Media Network's **INFORMATION CENTER** is a clearinghouse for information on films, videotapes and slideshows on a wide range of social issues—including disarmament, military policy and military spending. Accessible by phone or mail, the Center provides information on specific titles as well as programming ideas and contact with others who have used media on the same themes. For more information contact Media Network, Information Center, 208 W. 13 St., New York, NY 10011; (212) 620-0878.

WAR PEACE FILM GUIDE *John Dowling, 1980* Lists nearly 300 films, with descriptive and evaluative information and programming advice. Available for $5.00 from World Without War Publications, 67 E. Madison St., Suite 1417, Chicago, IL 60603. In addition, an update listing 60 films on nuclear war and nuclear arms is available for $2.00 from John Dowling, Dept. of Physics, Mansfield State College, Mansfield, PA 16933; (712) 662-4275.

DISARMAMENT: A SELECT FILM BIBLIOGRAPHY *Riverside Church Disarmament Program, 1982 (periodically updated)* Lists about 50 films and slideshows with very brief non-evaluative descriptions and very inexpensive distributors. Available free from Riverside Church Disarmament Program, 490 Riverside Drive, New York, NY 10027; (212) 222-5900.

SURVIVAL AUDIO-VISUAL GUIDE 1980-81 *Mobilization for Survival, 1980* Contains a comprehensive list of audio-visual resources on many social issues, including almost 80 films on militarism. Available for $3.00 (plus $1.00 postage) from Media Network, 208 W. 13 St., New York, NY 10011.

REEL CHANGE: A GUIDE TO SOCIAL ISSUE FILMS *Film Fund, 1979* An annotated guide listing 500 dramatic features, documentaries, shorts, videotapes and slideshows, including 20 films related to militarism. Available for $6.95 (plus $1.00 postage) from Media Network, 208 W. 13 St., New York, NY 10011.

IN FOCUS: A GUIDE TO USING FILMS *Linda Blackaby, Dan Georgakas and Barbara Margolis, 1980* A how-to manual, including advice on how to set up a film screening, ranging from how to run a projector to who has speakers bureaus. Available for $9.95 (plus $1.00 postage) from Media Network, 208 W. 13 St., New York, NY 10011.

TITLES

Below is a selected list of films, videotapes and slideshows dealing with aspects of the arms race. The addresses and telephone numbers of the distributors can be found at the end of the list. The prices given here are for rental; for sale prices, contact the distributors. The prices given by commercial distributors are often high. Community groups can often obtain films at lower prices from film libraries and other secondary sources. These sources are listed separately after the distributors.

ACCEPTABLE RISK? THE NUCLEAR AGE IN THE UNITED STATES *30 minute slideshow. Produced by NARMIC, 1980.*

This widely-used slideshow explores the link between nuclear weapons and nuclear power, giving testimony from experts and victims who document the risks and propose alternatives. It gives an overview of the production of nuclear power and weapons—from uranium mining through the nuclear fuel chain to electricity, bombs and radioactive waste. It highlights the corporations that manage the nuclear industry, and gives voice to the people affected by the nuclear age—Navajo miners, atomic workers, members of the armed forces, people from communities near nuclear test sites, and a survivor of Hiroshima. *Acceptable Risk?* challenges its audience to consider whether the risks of the atomic age are acceptable, and proposes that alternatives are possible.

Available for $15 rental from NARMIC, Physicians for Social Responsibility and the American Friends Service Committee.

ARE YOU A CONSCIENTIOUS OBJECTOR? RESISTING WAR IN THE '80s *17 minute slideshow. Produced by Ellie Buckley, B & B Productions. Written and researched by Larry Speari, 1981.*

This slideshow, made for an audience of draft age, introduces the concepts of war resistance, conscientious objection and the draft. It touches on the history of war objection and addresses problems surrounding military service. The forms of resistance described included draft resistance and legal and illegal conscientious objection, such as refusing to bomb cities or objecting to particular wars. The slideshow stresses that different people reach different decisions in their response to war and the draft.

Available for $15 from the Central Committee for Conscientious Objectors. CCCO also distributes a handbook and other materials on conscientious objection.

A Christian-oriented slideshow on the same theme, designed for religious audiences, is *Every Heart Beats True*, available for $12 from Packard Manse Media Project.

THE ATOMIC CAFE *87 minute color 16mm film. Produced by Jayne Loader, Kevin Rafferty and Pierce Rafferty, The Archives Project, 1982.*

This feature documentary film examines the history of the "Atomic Age" as it has been reflected in American media and culture. By turns ridiculous and horrifying, *The Atomic Cafe* tells its story by juxtaposing excerpts from government and military propaganda, television and radio shows, cartoons and now-forgotten A-bomb songs of the 1940s and '50s. Starting with the decisions to bomb Hiroshima and Nagasaki, the film proceeds to the post-war tests at the Bikini Atoll and in the Nevada desert, growing U.S. propaganda on the "peaceful atom" and the Soviet communist threat, the "duck and cover" style of civil defense, and the ever-present escalation of the arms race. It captures the atmosphere of fear, conformity and official lunacy that characterized Cold War culture and politics as it depicts twenty years of rationalizations, half-truths, lies and evasions on the dangers of nuclear weapons and atomic war.

Available from The Archives Project; inquire for prices.

THE BIG IF *9 minute color 16mm film. Animated by Bretislav Pojar for the United Nations, 1981.*

This colorful animated film poses the question: What would happen if we turned our tanks into tractors, our grenades into chickens and our uniforms into dresses and shoes? Although it is a children's fantasy, with elements of nonsense, the question is serious and the film can be used as a short before longer films for adults.

Available from UN Films; inquire for prices.

BOOOM *11 minute color 16mm film. Animated by Bretislav Pojar for the United Nations, 1979.*

An animated look at the history of aggression and the theory that might makes right. It carries us into the age of atomic missiles and postulates various scenarios for planetary self-destruction, both planned and accidental. Booom uses only sound effects and music to ask, "Is this the end?"

Available for $20 from Journal Films.

CLOUDS OF DOUBT *50 minute 3/4" videotape. Produced by KUTV, Salt Lake City, 1979.*

This story of the Nevada atomic bomb tests in the 1950s and '60s focuses on the government's suppression of information on their medical consequences. Interviews with local residents and soldiers who witnessed the tests show that many became victims of cancer and related radiation-induced ailments. Government dissimulation is evident in propaganda films from the Atomic Energy Commission and a reenactment of the radio broadcast that warned residents of St. George, Utah to stay inside for an hour while fallout from one of the tests drifted over their city.

Available for $75 from Electronic Arts Intermix or for $15 from Physicians for Social Responsibility.

DAY AFTER TRINITY: J. ROBERT OPPENHEIMER AND THE ATOMIC BOMB *90 minute color 16mm film. Directed by Jon Else, 1981.*

This is a profile of J. Robert Oppenheimer through the eyes of his family, his friends and the scientists who joined him in the race to perfect the bomb. It focuses on the events leading up to July 16, 1945, the day the first bomb was tested at the Trinity site in New Mexico, marking our passage into the Atomic Age. Combining archival footage with interviews, *Day After Trinity* links the Manhattan Project with continuing nuclear proliferation, and examines how a humanist scholar and scientist became the architect of "the most destructive weapon".

Available for $125 from Pyramid Films.

THE DECISION TO DROP THE BOMB *82 minute black & white 16mm film. Produced by Fred Freed for NBC, 1965. (35 minute version also available.)*

How and why was the decision made to drop the bomb on Hiroshima? This film reviews the period between Roosevelt's death to that day in 1945, as described by many of the participants in the decision—scientists, generals and political figures from both sides. The decision is posed as a question of military advantage vs. mass destruction and death. Couching it a decision to end the war and save lives, Truman said later, "I never suffered one minute of regret." In following the history of the event, the film reveals some of the decision-making process of the time. (The short version leaves out the scientists' reservations and the alternative proposal they made.)

Available from Films Incorporated: long version, $125; short version $55.

Please drop us a note if we have overlooked any major source or resource that you know of.

EIGHT MINUTES TO MIDNIGHT *60 minute color 16mm film. Produced by Mary Beniamin, 1981.*

This film is a documentary portrait of pediatrician, author and activist, Helen Caldicott. It shows a woman who, despite the demands of being a mother and a professional, has committed herself to informing the public of the medical dangers of nuclear radiation. The film follows Dr. Caldicott as she tours, speaks and writes on the nuclear issue. On a 1979 tour of Australia, she points out the dangers of proposed uranium mining on Aboriginal lands. Back in the US, she completes her book, "Nuclear Madness: What You Can Do", visits Three Mile Island, Rocky Flats nuclear weapons arsenal, and a meeting of Native Americans in New Mexico, and addresses the 1979 anti-nuclear march on Washington. In the last scene, Caldicott addresses a group of physicians, urging them to join her in a commitment against the nuclear threat. Throughout the film, Caldicott speaks about how radiation will continue to affect not only us but our children and future generations, and encourages the audience to take a stand and get involved.

Available for $150 (less for classroom use) from Direct Cinema.

HIROSHIMA-NAGASAKI, 1945 *16 minute black & white 16mm film. Directed by Akira Iwasaki, 1945; written by Paul Ronder and edited by Erik Barnouw, 1970.*

Photographed by Japanese cameramen during the first weeks after the bombs fell on Hiroshima and Nagasaki, the footage in this film was seized by the U.S. government and kept secret for over twenty years. In stark black and white, with sparse, eloquent narration, the film portrays the bombs' aftermath in the two cities—the shadows of people and objects permanently etched into sidewalks, the gruesome burns and radiation sickness suffered by thousands of inhabitants, the vast expanses of buildings collapsed and destroyed. The film is less a historical record than a plea never to drop a bomb again. Its last words remind us that the bombs we have now are many times more powerful than those dropped on Japan.

Available for $15 from the Museum of Modern Art, the American Friends Service Committee and Wilmington College Peace Resource Center.

THE HOLE *15 minute color 16mm film. Directed and animated by John and Faith Hubley, 1962.*

This is an entertaining and engaging animated film which counters the common tendency to ignore the possibility of nuclear war. Digging a foundation underground two construction workers argue about the cause of accidents, from dropping glasses to nuclear bombs. (The voices are those of George Mathews and jazz musician Dizzy Gillespie.) When a nearby crane drops its load nearby with a heavy crash, the workers believe—and imagine—that a bomb has destroyed the city above them. The point is evident: the need to disarm.

Available for $30 from Films Incorporated. (Films, Inc. also carries two other related films by the Hubleys, *The Hat* and *The Voyage to Next*, both of which also have scores by Dizzy Gillespie.)

IN OUR BACKYARDS: URANIUM MINING IN THE UNITED STATES *29 minute color 16mm film. Produced by Pamela Jones and Susanna Styron, Eleventh Hour Films, 1982.*

Uranium is the radioactive element that serves as the fuel for atomic weapons and nuclear power plants. So far, this precious mineral has been mined in the U.S. mostly in the southwest, on and around the Navajo Indian Reservation; but attempts have been made recently to mine it in such northeastern states as Vermont, New Jersey, New York and Virginia. The mining and milling of uranium involves stripping vast areas of land, reduction of local water tables, release of radioactive gases into the air, and the creation of radioactive waste. *In Our Backyards* explores the impact of this process on the environment and the health of workers and nearby residents.

The film features a former Navajo miner now dying of cancer, a miner's widow, residents of mining areas, tribal officials, mining company officials, health experts, a member of Congress and a representative of the Nuclear Regulatory Commission. It examines a spill of radioactive milling products into a river, and the apparent cover-up that ensued. It touches on a campaign by Vermont residents to pass a ban against uranium mining and milling in the state. It asks who is responsible for maintaining safety standards, and to what extent the responsibility is upheld.

Available for $40 from Bullfrog Films.

THE LAST EPIDEMIC *35 minute color 16mm film or 3/4" or 1/2" videotape. Produced by Impact Productions, 1981.*

This is a filmed presentation of a symposium held in San Francisco in 1979 by Physicians for Social Responsibility and the Council for a Livable World. The speakers, prominent physicians and others concerned with arms control, describe what would happen if a modern bomb were dropped on San Francisco, and the global ecological catastrophes that would follow a nuclear war. They discuss the impracticalities of civil defense, the destructive capacities of the nuclear weapons that are now deployed, and other aspects of nuclear arms. By adding footage from U.S. government films and footage from Hiroshima, the film brings home the awesome effects of nuclear war and the steps we are taking to make it more likely.

Available for $45 (video) or $75 (film) from the Resource Center for Non-Violence and Physicians for Social Responsibility. In addition to renting the film, PSR makes *The Last Epidemic* available as a videotape through all its local chapters. Local PSR chapters will also provide free speakers on the subject. For information contact PSR's national office.

MARSHALL ISLANDS: AMERICA'S RADIOACTIVE TRUST *25 minute slideshow. Produced by the Micronesia Support Committee.*

This slideshow examines the legacy of the United States nuclear testing in the Marshall Islands from 1946 to 1963. During that period, the United States detonated over seventy nuclear bombs in the area, including the infamous tests on the Bikini Atoll. In the process, much of the islands' population was relocated. Many of those who were not relocated experienced the effects of radioactive fallout and were subsequently used as guinea pigs by the United States Army, who painstakingly examined the burns and other injuries of the inhabitants. The existence of nuclear bases in the Pacific continues to this day, and is of grave concern to the people who live there, although not widely publicized in the United States.

Available from the Micronesia Support Committee. Additional written information is available from the Pacific Concerns Resource Center, Box 27692, Honolulu, HI 96827; (808) 538-3522.

NUCLEAR NIGHTMARES *90 minute color 16mm film. Produced by Peter Batty for BBC; directed by Nigel Calder, 1980.*

Peter Ustinov is the host of this examination of four possible scenarios for nuclear holocaust. The scenarios take the form of four "nightmares" that depict circumstances leading to nuclear conflict: escalation, proliferation, accident and pre-emptive first strike. Each sequence culminates in a fallout shelter where Ustinov reveals how the catastrophe happened.

Filmed in Western Europe and the Middle East, *Nuclear Nightmares* shows US, Soviet and NATO defense systems as well as rare scenes of Soviet soldiers at nuclear missile bases, and includes statements from experts in its examination of military systems and hardware all over the world. Its approach has been called irreverent and somewhat cynical, but one that appeals to the hope of avoiding nuclear war.

Available for $175 from Corinth Films.

PAUL JACOBS AND THE NUCLEAR GANG *60 minute color 16mm film. Produced by Jack Willis and Saul Landau, 1979.*

This film exposes the U.S. government's attempts to suppress information about the hazards of low-level radiation in order to protect its nuclear arms and energy programs. It covers soldiers' and civilians' exposure to atomic fallout from the Nevada test site in the 1950s and early '60s; the problems facing workers at the government's nuclear facilities in Washington and New Hampshire; and the experiences of the civilian population living downwind from the plutonium plant at Rocky Flats, Colorado.

Paul Jacobs, a political activist, filmmaker and journalist, was one of the first to expose the government's cover-up of this information. He died in 1978 of a rare form of lung cancer associated with radiation that his doctors believe he contracted while investigating the story in 1957. The film argues that the Atomic Energy Commission disregards public health by keeping vital information secret.

Available for $75 from New Time Films or from the Institute for Policy Studies (inquire for rental fee).

THE RACE NOBODY WINS *15 minute color slideshow. Produced by SANE; narrated by Tony Randall, 1981.*

This presentation clearly lays out the dangers and costs of the international arms race. Taped quotes from Dwight Eisenhower, Amnesty International's Sean McBride and others supplement well-documented information about the funds we have spent on nuclear arms, the destructive capabilities of both super-powers, the increase in nations that have acquired nuclear weapons, and other aspects of the arms race. The slideshow comes with study and action guides as well as a bibliography of recent publications on the arms race.

Available for $10 from SANE.

THE SELLING OF THE PENTAGON *52 minute black & white 16mm film. Produced by Peter Davis for CBS News, 1971.*

This uncompromising film examines the Pentagon's public relations activities in terms of where our taxes go. The costs of these activities, in 1971, came to between $30 million and $190 million. The activities included free VIP junkets for businessmen to see costly war games, tours by colonels to promote pro-war ideology and a $6.5 million budget for film, radio and television programming to further enlist public support. The film suggests that the Pentagon uses its public relations not only to inform, but also to persuade the public on issues of war and peace.

This documentary elicited vast protest from the military industrial complex when first broadcast. The response (also available as a 16mm film), *The Rebuttal of the Selling of the Pentagon*, subsequently aired on CBS, features Spiro Agnew, Melvin Laird and Richard Salant, president of CBS, among others.

Available for $18 from the United Church of Christ. *(Rebuttal* available from Carousel Films; inquire for rental fee.)

SENTENCED TO SUCCESS *60 minute color 16mm film. Produced by Cine Information Documents, France, with the cooperation of the French Atomic Workers Union, 1977. (In French with English subtitles.)*

The effects of radiation pose a danger to thousands of nuclear workers every day. *Sentenced to Success* focuses on occupational environmental hazards at La Hague nuclear reprocessing plant on the coast of France. The plant receives nuclear wastes from around the world, salvaging elements to be re-used in other nuclear reactors. Workers talk about contamination, problems with the protective clothing they are issued, and the uncertainty of their jobs. Concrete tunnels pump radioactive liquids into the Atlantic Ocean. Townspeople feel the plant was imposed on them without consultation, while local mayors criticize the lack of evacuation plans.

We tend to think of radioactive waste in terms of how to dispose of it. The people put to work reprocessing that waste encounter its dangerous effects intimately.

Available for $45, $65 or $100 (depending on the nature of the screening) from Green Mountain Post Films.

THINKING TWICE ABOUT NUCLEAR WAR *30 minute color 3/4" videotape. Produced by Kim Spencer and directed by Mark Centowski for the Public Interest Video Network, 1981.*

Thinking Twice is about a middle-class American family coming to grips with the realities of the nuclear arms race and its implications for their personal security. The Strandberg family lives in Richmond, Virginia, a likely nuclear target located between Washington, D.C. and the military installations at Norfolk. Like most Americans, they knew little about the arms race or nuclear war before the film was begun. Together, the family views television programs and attends a public forum on the issue. As the film proceeds, they have dinner with a survivor from Hiroshima, tour a nuclear-armed ship and picnic in the backyard with an expatriate Russian family. Each family member responds differently to this new knowledge and perspective on the implications of the arms race.

Available for $40 from Skye Pictures.

UNFORGETTABLE FIRE: DRAWINGS BY A-BOMB SURVIVORS *15 minute color slideshow. Produced by the Japan Broadcasting System, 1975. English version produced in 1976 by the Maine Peace Action Committee.*

Most of these slides are drawings by survivors of the A-bomb in Hiroshima. In 1974, the Japan Broadcasting Company in Hiroshima put out a call for "pictures of the A-bomb". Survivors submitted over 2,000 drawings. When questioned about why they drew the pictures, the artists testified that it helped relieve some anguish of their souls and would lead others to understand the truth of nuclear war.

The narration explains the pictures and provides a chronological account of what happened—minute by minute—on that day in August, 1945.

Available for $10 or $15 from the American Friends Service Committee, or for $5 from The Wilmington College Peace Resource Center.

Military Intervention

The current disarmament movement has called for an end to nuclear proliferation, and for the transfer of funds from military spending to meet human needs. These concerns are addressed by many of the films, videotapes and slideshows in this guide.

There are many films that, although they are not specifically about arms and disarmament, can help put the current debate in an international and historical context by addressing the question of international military intervention. Two films on the situation in Central America have received especially wide acclaim: **Americas in Transition** *(30 minute color 16mm film. Produced by Obie Benz, 1981. Available from Obie Benz.)* and **El Salvador: Another Vietnam** *(50 minute color 16mm. Produced by Glenn Silber and Tete Vasconcellos, 1981. Available from Icarus Films.)* Those who would like to tie the Central American crisis to the United States war in Indochina may want to resurrect the classic **Hearts and Minds** *(112 minute color 16mm film. Produced by Peter Davis, 1974. Available from Audio Brandon Films.)* Lastly, the question of international distribution of resources and its implications for military intervention is addressed in **Sharing Global Resources** *(35 minute slideshow. Produced by NARMIC, 1976. Available from the American Friends Service Committee.)*

THE WAR GAME *50 minute black & white 16mm film. Directed by Peter Watkins for BBC, 1965.*

What would happen if your community were the target of nuclear attack? *The War Game* has become a classic film, used by a wide variety of groups. It is a horrifyingly convincing fictional enactment of nuclear holocaust, based on information supplied by experts in nuclear defense, economics and medicine. The overall mood is one of panic. A vast proportion of the population is killed immediately, while the survivors experience evacuation, hunger riots and widespread chaos.

Staged interviews with people "on the street" reveal general ignorance of the extent of arms proliferation and a sense of distance from the terrifying hypothetical situation.

This film was banned by the BBC once it had been produced. It hits hard and should be used in conjunction with other films, literature or speakers to keep uninitiated audiences from merely feeling numbed.

Available for $150 from Films Incorporated.

WAR WITHOUT WINNERS *28 minute color 16mm film. Produced by Harold Willens and directed by Haskell Wexler for the Center for Defense Information, 1979.*

War Without Winners has been called "an appeal to reason" rather than to fear. The film juxtaposes views of both military experts and ordinary people in the United States and the U.S.S.R. and makes the case that we have a lot in common and that we all want peace. Interviews with workers, students, parents and children alternate with footage of strategic nuclear weapons in action, corporate advertisements for defense technology, and Dwight D. Eisenhower's speeches on world peace. Admiral Gene R. LaRocque, a nuclear war planner for seven years and now head of the Center for Defense Information, concludes, "It is very difficult and somewhat embarrassing for military men to accept the fact that we have no defense against Soviet missiles and that the Soviets have no defense against our missiles . . . . There are no winners in a nuclear war."

Available for $35 from Films, Incorporated.

WHO'S IN CHARGE HERE? *15 minute color 16mm film. Produced by Herb Coro for the Institute for World Order, with the International Association of Machinists and the United Nations Association of the U.S.A.; narrated by Eli Wallach, 1980.*

Who's in Charge Here? looks at the impact U.S. military spending has on our economy—jobs, taxes and inflation—from a human, personal viewpoint. A group of defense workers at United Technologies talk about energy, inflation, mass transit and military spending and security. This film argues that adequate security is possible without escalating the arms race or military spending. By rethinking our priorities and converting our economy, it says, we can move toward job security and economic stability.

Available for $20 from Operation Turning Point.

WHOSE BUDGET IS IT ANYWAY? *20 minute color slideshow. Produced by Ellie Buckley for NARMIC and the Coalition for a New Foreign and Military Policy, 1982.*

This slideshow links a multitude of social issues in describing the current pattern of cutbacks in domestic spending while the military budget soars. In it, a variety of voices explain the benefits of broad social programs and express concern over the far-reaching implications of the Reagan Administration's economic policies—unemployment, cuts in educational programs and support for the disadvantaged, unequal tax breaks, the shift of fiscal responsibility to the states.

Whose Budget is it Anyway? sees Pentagon expansion as a major barrier to solving our social problems. It breaks down how much of our tax money goes to military spending, compares military and civilian employment, addresses myths about Soviet superiority and explains how weapons production fuels inflation.

The presentation ends by urging neighborhood groups to get involved and demand that government funds go to meeting basic needs rather than building up the war machine that threatens our existence.

Available for $15 from NARMIC/American Friends Service Committee or the Coalition for a New Foreign and Military Policy. A list of factual sources for the slideshow is also available, along with a "Priorities Guide" (prepared by the Coalition for a New Foreign and Military Policy).

WOMEN AND POWER IN THE NUCLEAR AGE *30 minute color 3/4" videotape. Produced by High Hopes Media, 1981.*

Dr. Helen Caldicott, the anti-nuclear activist and physician, discusses grassroots tactics for anti-nuclear activity. She recalls her early reactions to the potential horrors of nuclear warfare and her long-term commitment to fighting nuclear war technology. She warns women not to get caught in the male scientific ethic of "never speaking unless you are totally correct", and advocates instead a reliance on intuition: We know intuitively that "the men who build bombs are separated from reality" and that we can do something about it. Caldicott advocates direct action without waiting for massive organizational backing, recalling her early experiences fighting French H-bomb tests in the South Pacific, and stresses that people can be reached by using common sense. As an example, she describes the about-face of union uranium miners when confronted with informatin on the effect of radiation on their testicles.

Available for $40 from High Hopes Media.

TIPS continued

** Slide projectors, videotape decks and 16mm film projectors are often available free through public library systems or from local churches, community centers, schools and universities. Larger cities often have low-cost media equipment resource centers, which you can find out about by calling your state or county Arts Council. The people who lend you equipment can show you how to operate it. It's important to test equipment before using it at the actual event.

** It's always helpful to begin your program with an introduction that not only explains who you are but notes some of the strong points or limitations of the film you are about to show. Placing the film in a context in this way makes it easier for the audience to focus their reactions afterwards.

** Have back-up material on hand with facts and figures for people who have questions, challenge your point of view or want to know more. It's also a good idea to have fliers or other written information that will tell people how to get involved, where to go next, and what they can do to help.

** After the presentation, start the discussion by referring directly to the film and involving the audience directly. Useful questions include: "What struck you most in the film? What is your first reaction to the film's content?" Be prepared to listen closely and carefully to the audience in order to take their immediate reactions one step further. Don't distance people from the film by taking too intellectual a point of view. To get into a more factual discussion, you might ask, "What questions did the film leave you with?"

Make sure to designate a discussion leader who will encourage active participation and keep the discussion focused, and make sure the discussion leader sees the film before showing it to the audience, in order to be prepared for questions and reactions.

** Afterwards, ask the audience for evaluations and suggestions for future events.

DISTRIBUTORS

Below is a list of the distributors of the media described in this brochure. Try to order films at least six weeks in advance, if possible.

AMERICAN FRIENDS SERVICE COMMITTEE *(AFSC) National Office*, 1501 Cherry St., Philadelphia, PA 19102; (215) 241-7175. Distributes slideshows produced by NARMIC, and sub-distributes dozens of other films and slideshows on a wide variety of social issues at very low cost. (See listing under Libraries.)

ARCHIVES PROJECT c/o Pierce Rafferty, PO Box 438, Canal Street Station, NY, NY 10013.

AUDIO BRANDON FILMS *New York Office*: 34 MacQueston Parkway South, Mt. Vernon, NY 10550; (914) 664-5051; (toll free no: 800-742-1889 or 800-431-1994). *Atlanta Office*: 5797 New Peachtree Rd., Atlanta, GA 30340; (404) 458-6254; (toll free no: 800-241-3257). *Chicago Office*: 512 Burlington Ave., LaGrange, IL 60525; (312) 352-6630; (toll-free no.: 800-323-4881). *Dallas Office*: 8615 Directors Row, Dallas, TX 75247; (214) 357-6494; (toll-free no.: 800-442-7648 or 800-527-9830). *Los Angeles Office*: 7838 San Fernando Rd., Sun Valley, CA 91352; (213) 767-9621; (toll-free no.: 800-232-2006 or 800-423-2590). One of the largest distributors of educational and non-theatrical entertainment films.

BULLFROG FILMS Oley, PA 19547; (215) 779-8226. Distributes films on energy and ecology.

CAROUSEL FILMS 1501 Broadway, NY, NY 10036; (212) 354-0315.

CENTRAL COMMITTEE FOR CONSCIENTIOUS OBJECTORS (CCCO) 2208 South St., Philadelphia, PA 19146; (215) 545-4626. Distributes its own slideshow as well as literature on conscientious objection and war resistance.

COALITION FOR A NEW FOREIGN & MILITARY POLICY 120 Maryland Ave. NE, Washington DC 20002; (202) 546-8400. Distributes its own slideshow plus excellent literature regarding military policy. Also has a speakers bureau.

CORINTH FILMS 410 E. 62 St., NY, NY 10021; (212) 421-4770.

DIRECT CINEMA PO Box 315, Franklin Lakes, NJ 07417; (201) 891-8240.

ELECTRONIC ARTS INTERMIX 84 Fifth Ave., NY, NY 10011; (212) 989-2316.

FILMS, INCORPORATED 1144 Wilmette Ave., Wilmette, IL 60091; (312) 256-4730. Films, Inc. is one of the largest US distributors of educational films. It has offices across the country: *Northeast Region* (toll-free no.): 800-223-6246; *Southeast Region* (toll-free no.): 800-241-5530; *Midwest Region* (toll-free no.): 800-323-4222; *Western Region* (toll-free no.): 800-421-0612; *New York City*: (212) 889-7910; *Los Angeles*: (213) 466-5481.

GREEN MOUNTAIN POST FILMS PO Box 229, Turners Falls, MA 01376; (413) 863-4754. Along with *Sentenced to Success*, distributes more than a dozen anti-nuclear films.

HIGH HOPES MEDIA 233 Summit Ave. East, Seattle, WA 98102; (206) 322-9010. Distributes videotapes on women's issues.

ICARUS FILMS 200 Park Ave. South, NY, NY 10003; (212) 674-3375. Distributes films on domestic and international economic and social issues.

INSTITUTE FOR POLICY STUDIES 1901 Que St. NW, Washington, DC 20009; (202) 234-9382. Distributes films, books and reprints of articles on militarism, national security, foreign policy and human rights.

JOURNAL FILMS 930 Pitner Ave., Evanston, IL 60202; (312) 328-6700.

MICRONESIA SUPPORT COMMITTEE 1212 University Ave., Honolulu, HI 96826; (808) 942-0437.

MUSEUM OF MODERN ART Dept. of Film, 11 W. 53 St., NY, NY 10019; (212) 956-4204. Distributes films of current and historical interest.

NARMIC *National Action/Research on the Military Industrial Complex)* 1501 Cherry St., Philadelphia, PA 19102; (215) 241-7175. Produces and distributes slideshows on the military industrial complex.

NEW TIME FILMS 132 W. 31 St., NY, NY 10011; (212) 695-2542.

OBIE BENZ 401 West Broadway, NY, NY 10012; (212) 226-2465.

OPERATION TURNING POINT Institute for World Order, 777 UN Plaza, NY, NY 10017; (212) 490-0010. Provides literature as well as films, slideshows and public service announcements promoting alternatives to war.

PACKARD MANSE MEDIA PROJECT Box 450, Stoughton, MA 02072; (617) 344-9634. Produces and distributes slideshows on militarism and other issues from a Christian perspective.

PHYSICIANS FOR SOCIAL RESPONSIBILITY *National Office*, PO Box 144, Watertown, MA 02172; (617) 924-3468. Offers literature and audio-visual materials at low cost that relate to the effects of nuclear energy and arms. Accepts film orders by telephone only. (See listing under Libraries.)

PYRAMID FILMS PO Box 1048, Santa Monica, CA 90406; (213) 828-7577.

RESOURCE CENTER FOR NON-VIOLENCE 515 Broadway, PO Box 2324, Santa Cruz, CA 95063; (408) 423-1626.

SANE 514 C St. NE, Washington DC 20002; (202) 546-7100. Produces and distributes audio-visual material as well as informational literature on the arms race.

SKYE PICTURES 1460 Church St., Washington DC 20055; (202) 265-7846.

UN FILMS United Nations, Room 808, NY, NY 10017; (212) 754-6939.

UNITED CHURCH OF CHRIST Office for Audio-Visuals, 600 Grand Ave., Ridgfield, NJ 07657; (201) 945-7060 or 512 Burlington Ave., LaGrange, IL 60525; (312) 352-1535. Maintains a low-cost film library on a variety of social and religious subjects.

This guide was compiled by Abigail Norman.

Thanks to Paul Shannon at the American Friends Service Committee in Cambridge, Eric Feinberg at the North American Congress on Latin America (NACLA), John Demeter at Star Film Library, Dorothy Martin at Resist, and Karen Sayer at the University of Michigan Media Resource Center, who all helped with information and suggestions for this guide.

Funding for this guide came from the Peace Development Fund, Resist, and individual contributions.

FILM LIBRARIES

Below is a list of audio-visual libraries and other sources that provide free or low-cost materials to educational, church, labor and community groups. These sources tend to have a limited supply of copies of each title, so again it's important to order well in advance.

AMERICAN FRIENDS SERVICE COMMITTEE *(AFSC) National Office*, 1501 Cherry St., Philadelphia, PA 19102; (215) 241-7000. In addition to its national office, AFSC has ten regional offices around the country. Each office has its own collection of films and slideshows. Many of the titles listed in this guide are available at very low cost from AFSC's regional offices: *Atlanta AFSC*, 92 Piedmont Ave. NE, Atlanta, GA 30303; (404) 586-0460. *Baltimore AFSC*, 317 E. 25 St., Baltimore, MD 21218; (301) 366-7200. *Cambridge AFSC*, 2161 Massachusetts Ave., Cambridge, MA 02140; (617) 497-5273. *Chicago AFSC*, 407 S. Dearborn St., Chicago, IL 60605; (312) 427-2533. *Dayton AFSC*, 915 Salem Ave., Dayton, OH 45406; (513) 278-4225. *Des Moines AFSC*, 4211 Grand Ave., Des Moines, IA 50312; (515) 274-4851. *New York AFSC*, 15 Rutherford Place, NY, NY 10003; (212) 598-0972. *Pasadena AFSC*, 980 N. Fair Oaks Ave., Pasadena, CA 91103; (213) 791-1664 or 791-1978. *San Francisco AFSC*, 2160 Lake St., San Francisco, CA 94121; (415) 752-7766. *Seattle AFSC*, 814 N.E. 40 St., Seattle, WA 98105; (206) 632-0502.

CLERGY AND LAITY CONCERNED 198 Broadway, NY, NY 10038; (212) 964-6730. Offers slideshows on issues of peace and hunger at low cost, including *Whose Budget is it Anyway?* and *Acceptable Risk?*.

ECU-FILM 810 Twelfth Ave. South, Nashville, TN 37203; (toll free no.) 800-251-4091. Carries low-cost prints of *Hiroshima-Nagasaki, 1945*, *The Selling of the Pentagon* and other films.

INTERCOMMUNITY CENTER FOR JUSTICE AND PEACE 20 Washington Square North, NY, NY 10011; (212) 475-6677. Offers *The Last Epidemic*, *The War Game* and other titles at very low cost. Preference is given to groups that can pick up films at the office rather than ordering them by mail.

MENNONITE CENTRAL COMMITTEE Audio-Visuals Library, 21 S. 12 St., Akron, PA 17501; (717) 859-1151. Provides films and slideshows for free loan; you must order as far in advance as possible. Titles include *Are You a Conscientious Objector?*, *The War Game* and *The Race Nobody Wins*.

PHYSICIANS FOR SOCIAL RESPONSIBILITY *National Office*, PO Box 144, Watertown, MA 02172; (617) 924-3468. Rents out films, videotapes and slideshows at low cost, including *Clouds of Doubt* and *Paul Jacobs and the Nuclear Gang*. (Orders accepted by telephone only.) Each of the PSR's regional offices has a copy of *The Last Epidemic* for loan. Regional offices, which can be reached through the national office, can also provide free speakers on the medical consequences of nuclear war.

UNITED AUTOMOBILE WORKERS *(UAW)* Film Library, 8000 E. Jefferson Ave., Detroit, MI 48214; (313) 926-5474. Provides films—most on labor, but some others, including *War Without Winners*—at very low cost to union locals and community organizations.

UNITED CHURCH OF CHRIST Office for Audio-Visuals, 600 Grand Ave., Ridgefield, NJ 07657; (201) 945-7060 or 512 Burlington Ave., LaGrange, IL 60525; (312) 352-1535. Offers a variety of films at low cost, including *Hiroshima-Nagasaki, 1945* and *The Selling of the Pentagon*.

WILMINGTON COLLEGE PEACE RESOURCE CENTER Hiroshima/Nagasaki Memorial Collection, Pyle Center, Box 1183, Wilmington, OH 45177; (513) 382-5338. Sells books and rents out films and slideshows relating to war and peace, including *Unforgettable Fire* and *The Race Nobody Wins*.

Many universities have film collections with low-cost rentals to schools and community groups across the country. Always check to see whether the universities in your city or region have film libraries you can use. Some that have films relating to the arms race and disarmament are:

BOSTON UNIVERSITY Krasker Memorial Film Library, 765 Commonwealth Ave., Boston, MA 02215; (617) 353-3272. Has *Day After Trinity*, *The War Game* and *War Without Winners*.

INDIANA UNIVERSITY Audio Visual Center, Bloomington, IN 47405; (812) 337-2103. Has *The War Game* and *The Hole*.

NEW YORK UNIVERSITY Film Library, 26 Washington Place, NY, NY 10003; (212) 598-2250. Has *The Big If*, *Booom* and *Hiroshima-Nagasaki, 1945*.

UNIVERSITY OF CALIFORNIA Extension Media Center, 2223 Fulton St., Berkeley, CA 94720; (415) 642-0460. Has *The Decision to Drop the Bomb*, *The Hole* and *Hiroshima-Nagasaki, 1945*.

UNIVERSITY OF MICHIGAN Media Resource Center, 416 Fourth St., Ann Arbor, MI 48109; (313) 764-5360. Has *Day After Trinity*, *The Decision to Drop the Bomb*, *War Without Winners* and *The War Game*.

Copies of this guide are available for $1.00 per copy from **Media Network**, 208 W. 13 St., New York, NY 10011; (212) 620-0878.
Bulk rates: 2-10 copies: $.75 each; 11 or more copies: $.50 each. For large quantities, please inquire.

Center for the Study of Filmed History, Inc. **non-profit Org.**

208 W. 13th Street
New York, N.Y. 10011

YES! I want to stay informed and support ESR.

___ Enclosed is my $20 membership dues ($10 if low income)

___ I also enclose an additional tax deductible contribution of _____ to help support the work of ESR.

(Where local chapters exist, 60% of your dues goes to your local chapter.)

Name: _____

Address: _____

_____

City: _____

State: _____ Zip: _____

School: _____

Position: _____

Professional Organizations/Unions:

Send to:
Educators for Social Responsibility
639 Massachusetts Avenue
Cambridge MA 02139

Names and addresses of others who may be interested in ESR:

WHAT IS EDUCATORS FOR SOCIAL RESPONSIBILITY?

ESR was founded in May, 1981 to educate teachers at all grade levels in both public and private schools, school administrators, and parents about the issues related to the danger of nuclear war and the arms race. We are committed to helping adults respond positively through education to children's concerns about nuclear war. We believe it is important for students to hear different sides of the issues, and we are developing age-appropriate curriculum materials that stress the values of critical thinking and citizens' involvement in decision-making.

A national organization of educators and parents, with 43 chapters, ESR's projects include:

* developing age-appropriate curriculum materials and teacher guidelines
* consulting with parent groups and school systems about how the new curricula on the nuclear arms race can be introduced
* sponsoring workshops and conferences to help educators and parents understand and respond to children's concerns about nuclear war
* maintaining an up-to-date annotated bibliography of resource materials for use in educating both adults and students about the nuclear arms race
* sponsoring public forums on issues related to nuclear arms control
* exploring what it means to educate for social responsibility in the broadest sense
* publishing a national newsletter with information about what educators are doing, in-depth articles on aspects of the nuclear arms race, and announcements of conferences and special events

By becoming an ESR member, you stay involved and informed through our newsletter. You help set priorities for the national organization by participating in your local chapter and at the annual meeting. Your membership dues help provide the financial support that ESR must have to do the important work of educating adults and students about the issues related to nuclear weapons and war and peace.

A strong and well-informed national organization of educators and parents may make a critical difference in reducing the threat of nuclear war. Please join today so that we can continue to share information, ideas, and support.